TOSHIBA

FILE NO. 020-200523GR

SERVICE MANUAL

Projection Television

56HM195
62HM195
72HM195

The above models are classified as green products (*1), as indicated by the underlined serial numbers. This Service Manual describes replacement parts for the green products. When repairing these green products, use the parts described in this manual and lead-free solder (*2).

For (*1) and (*2), see the next page.

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CIRCUIT DIAGRAM

(*1) GREEN PRODUCT PROCUREMENT

The EC is actively promoting the WEEE & RoHS Directives that define standards for recycling and reuse of Waste Electrical and Electronic Equipment and for the Restriction of the use of certain Hazardous Substances. From July 1, 2006, the RoHS Directive will prohibit any marketing of new products containing the restricted substances.

Increasing attention is given to issues related to the global environmental. Toshiba Corporation recognizes environmental protection as a key management tasks, and is doing its utmost to enhance and improve the quality and scope of its environmental activities. In line with this, Toshiba proactively promotes Green Procurement, and seeks to purchase and use products, parts and materials that have low environmental impacts.

Green procurement of parts is not only confined to manufacture. The same green parts used in manufacture must also be used as replacement parts.

(*2) LEAD-FREE SOLDER

This product is manufactured using lead-free solder as a part of a movement within the consumer products industry at large to be environmentally responsible. Lead-free solder must be used in the servicing and repair of this product.

WARNING

This product is manufactured using lead free solder.

DO NOT USE LEAD BASED SOLDER TO REPAIR THIS PRODUCT !

The melting temperature of lead-free solder is higher than that of leaded solder by 86°F to 104°F (30°C to 40°C). Use of a soldering iron designed for lead-based solders to repair product made with lead-free solder may result in damage to the component and or PCB being soldered. Great care should be made to ensure high-quality soldering when servicing this product — especially when soldering large components, through-hole pins, and on PCBs — as the level of heat required to melt lead-free solder is high.

SAFETY INSTRUCTIONS

SAFETY PRECAUTION

WARNING: Service should not be attempted by anyone unfamiliar with the necessary precautions on this receiver. The following are the necessary precautions to be observed before servicing this chassis.

1. An isolation transformer should be connected in the power line between the receiver and the AC line before any service is performed on the receiver.
2. When replacing a chassis in the cabinet, always be certain that all the prospective devices are put back in place, such as; non-metallic control knobs, insulating covers, shields, isolation resistor-capacitor network etc.

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the international hazard symbols on the schematic diagram and the parts list.
Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety character istics as specified in the parts list may create shock, fire, or other hazards.

SERVICE MODE

1. ENTERING SERVICE MODE

1) Press MUTE button twice on Remote Control.

2) Press MUTE button again and keep pressing.

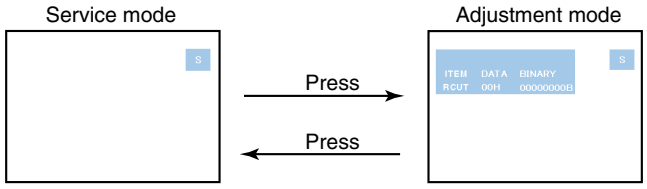
3) While pressing the MUTE button, press MENU button on TV set.



(Service mode display)

2. DISPLAYING THE ADJUSTMENT MENU

1) Press MENU button on Remote Control.



3. SELECTING THE ADJUSTING ITEMS

1) Every pressing of CHANNEL ▲ button in the service mode changes the adjustment items in the order of table-2. (▼ button for reverse order)

Refer to table-1 for preset data of adjustment mode.
(See SETTING & ADJUSTING DATA on page 9)

4. ADJUSTING THE DATA

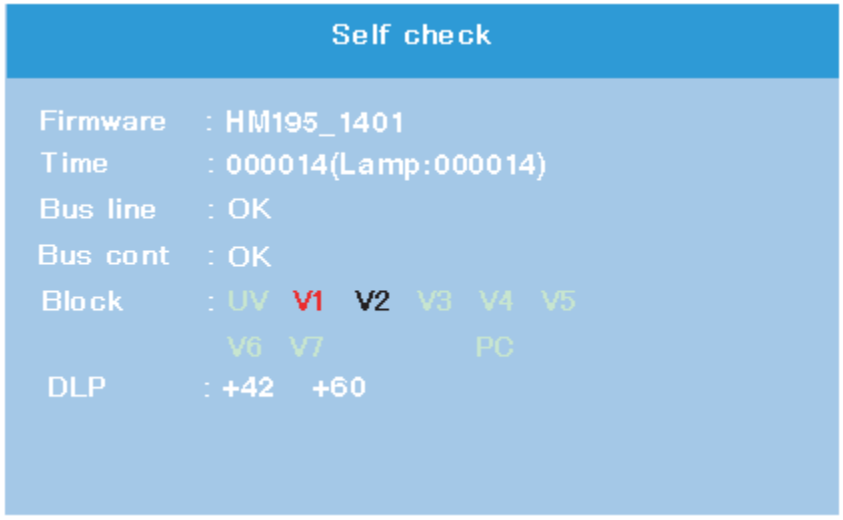
1) Pressing of VOLUME ▲ or ▼ button will change the value of data in the range from 00H to FFH. The variable range depends on the adjusting item.

5. EXIT FROM SERVICE MODE

1) Pressing POWER button to turn off the TV once.

6. SELF DIAGNOSTIC FUNCTION

1) Press “9” button on Remote Control during display of adjustment menu in the service mode.
   The diagnosis will begin to check if interface among IC’s is executed properly.
2) During diagnosis, the following displays are shown.


Self check
① Firmware : HM195_1401
② Time : 000014(Lamp:000014)
③ Bus line : OK
④ Bus cont : OK
⑤ Block : UV V1 V2 V3 V4 V5
V6 V7 PC
⑥ DLP : +42 +60

① Firmware :
Version information of microprocessor
In case of file name : HM195 and Version : 1401 indicates[HM195_1401].

② Time : Total brightness hour of the projection lamp. (Unit : H)

③ Bus line : --"OK" is normal
"SCL-GND"(Red indication) : SCL-GND short circuit
"SDA-GND"(Red indication) : SDA-GND short circuit
"SCL-SDA"(Red indication) : SCL-SDA short circuit

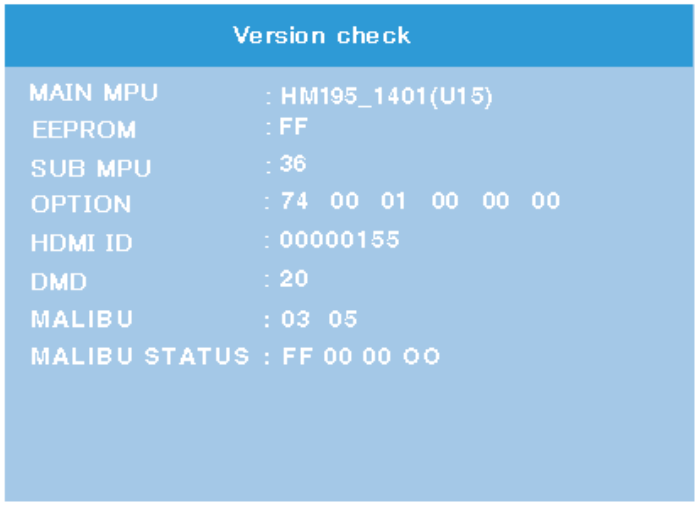
④ Bus cont : --- "OK" is normal.
NG is abnormal(Red indication), when type name of semiconductor indicates.

⑤ Block
UV : TV reception mode
V1 : VIDEO 1 input mode
V2 : VIDEO 2 input mode
V3 : VIDEO 3 input mode
V4 : ColorStream HD-1 IN
V5 : ColorStream HD-2 IN
V6 : HDMI IN 1
V7 : HDMI IN 2

⑥ DLP : Thermal sensor values information that indicates both of nearby the projection lamp and DMD microprocessor into the unit.

7. VERSION CHECK MODE

1) Press “9” button twice on Remote Control during display of adjustment menu in the service mode. The version of main MPU will begin to check.
2) During Version Check, the following displays are shown.


Version check
① MAIN MPU : HM195_1401(U15)
② EEPROM : FF
③ SUB MPU : 36
④ OPTION : 74 00 01 00 00 00
⑤ HDMI ID : 00000155
⑥ DMD : 20
⑦ MALIBU : 03 05
⑧ MALIBU STATUS : FF 00 00 OO

① MAIN MPU :
Version information of microprocessor
In case of file name : HM195, Version 1401 for Code Program Version and (U15) for OSD Version indicates [HM195_1401(U15)]

② EEPROM :
Version information of EEPROM : Display 1 byte data.

③ SUB MPU :
Version information of SUB MPU : Display 1 byte data.

④ OPTION :
Option information : Display six numbers of 1 byte data.

⑤ HDMI ID :
HDMI ID information : Display 4 byte data.

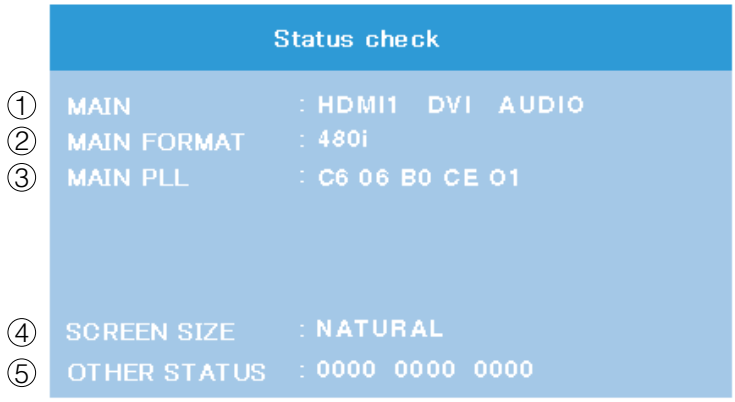
⑥ DMD :
Version information of DMD optical engine : Display 1 byte data.

⑦ MALIBU :
MALIBU information : Display two numbers of 1 byte data.

⑧ MALIBU STATUS :
MALIBU STATUS information : Display four numbers of 1 byte data.

8. STATUS CHECK MODE

1) Press “9” button thrice on Remote Control during display of adjustment menu in the service mode. The status of this model will begin to check.
2) During Status Check, the following displays are shown.


Status check
① MAIN : HDMI1 DVI AUDIO
② MAIN FORMAT : 480i
③ MAIN PLL : C6 06 B0 CE 01
④ SCREEN SIZE : NATURAL
⑤ OTHER STATUS : 0000 0000 0000

① MAIN :
Main source information :
Display RF position number (1 - 135) on the main screen, or Input Source (HDMI1/2, DVI, AUDIO etc.)

② MAIN FORMAT :
Display Video and PC format information

③ MAIN PLL :
Main PLL information : Display 1 byte data at five.

④ SCREEN SIZE :
Display the screen size as follows.

Theater Wide 1
Theater Wide 2
Theater Wide 3
FULL
NATURAL

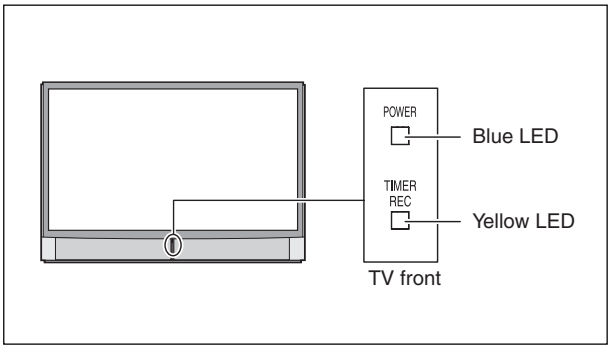
⑤ OTHER STATUS :
Other status information : Display three numbers of 2 byte data.

9. LED indications

The yellow and blue LED lights on the TV (at the bottom center of the TV) indicate the TV's status, as described below:

- Blue ON (solid) and Yellow OFF = The TV power cord is plugged in.
- Yellow ON (solid) and Blue OFF = A recording is in progress while the TV is OFF.
- Blue ON (solid) and Yellow ON (solid) = A recording is in progress while the TV is ON.
  Yellow and/or Blue blinking (see table below).

Note: If the TV loses A/C power (e.g., a power outage occurs or the power cord is unplugged), when power is restored, the yellow LED will blink while the TV is booting until the remote control is usable. This is normal and is not a sign of malfunction.



	LED	Condition	Solution
1	Yellow blinks continuously at 3-second intervals. Blue blinks continuously at 0.5-second intervals.	The lamp unit door is not seated properly.	Turn OFF the TV and unplug the power cord. Review "How to replace the lamp unit" on pages 10–12 to ensure that the lamp door is installed securely.
2	Yellow blinks continuously at 0.5-second intervals; Blue is ON (solid).	The lamp is not working properly.	The TV will automatically try to restart itself eight times (see item #3).
3	Yellow and Blue blink continuously at 1-second intervals.	The lamp is not working properly after the eighth automatic restart (see item #2).	Turn the TV OFF and then ON again. If the problem persists, replace the lamp unit (see pages 10–12).
4	Yellow is OFF; Blue blinks at 0.2-second intervals 4 times (repeat).	An abnormal temperature increase has occurred.	Turn OFF the TV. Check to make sure all slots and openings in the TV cabinet are not covered, blocked, or dusty. Turn ON the TV again. If the problem persists, contact a Toshiba Authorized Service Center.
5	Yellow is OFF; Blue blinks continuously at 0.5-second intervals.	Abnormal operation (including cooling fan stop).	Turn OFF the TV and unplug the power cord. Plug the power cord in again and turn ON the TV.
6	Yellow is OFF; Blue blinks continuously at 1-second intervals.	Abnormal operation of BUS line.	Turn OFF the TV and unplug the power cord. Plug the power cord in again and turn ON the TV.
7	Yellow is OFF; Blue blinks at 0.2-second intervals 3 times (repeat).	The color wheel has stopped.	Turn OFF the TV and unplug the power cord. Plug the power cord in again and turn ON the TV.

SETTING & ADJUSTING DATA

【SERVICE MODE】

ADJUSTING ITEMS AND DATA IN THE SERVICE MODE:

Item	Name of adjustment	Preset	Data
RCUT	R CUT OFF	00H	←
GCUT	G CUTOFF	00H	←
BCUT	B CUT OFF	00H	←
GDRV	G DRIVE	80H	←
BDRV	B DRIVE	80H	←
RDRV	R DRIVE	80H	←
＊BRTC	BRIGHTNESS CENTER	FDH	←
＊COLC	COLOR CENTER	C8H	←
＊UVTT	BASE BAND TINT	FEH	←
＊CNTX	CONTRAST MAX	80H	←
CNTCG	G CONTRAST CENTER	64H	←
CNTCR	R CONTRAST CENTER	64H	←
CNTCB	B CONTRAST CENTER	64H	←
HPOS	H-POSITION	00H	←

Item	Name of adjustment	Preset	Data
VPOS	V-POSITION	00H	←
CWDH	COLOR WHEEL DELAY (HIGH)	00H	←
CWDL	COLOR WHEEL DELAY (LOW)	74H	←
DMDB	DMD BIAS	03H	←
OPT1	TV SET OPTION 1	74H	←
OPT2	TV SET OPTION 2	00H	←
OPT3	TV SET OPTION 3	01H	←
PLLW0	PLL WAIT TIME	14H	←
PLLW1	PLL WAIT TIME	03H	←
PLLW2	PLL WAIT TIME	0FH	←
PLLW3	PLL WAIT TIME	05H	←
PLLW4	PLL WAIT TIME	14H	←
PLLW5	PLL WAIT TIME	04H	←

Table-1

Note:

The image system data of ＊ mark items are different by each image format.
The RF-Signal value is indicated in the table.
Retention the HPOS and VPOS data to EEPROM of Malibu.
Retention the CWDH and CWDL data to EEPROM of DMD.

LAMP UNIT REPLACEMENT

Cautions when replacing LAMP UNIT (E998Z; PJ-D95-LMP)

The light source for this TV is a mercury lamp with internal atmospheric pressure that increases during use. The lamp has a limited service life that varies depending on user settings. If you use the lamp beyond its service life:

- you may notice a reduction in the colors and/or brightness of the picture; and
- the strength of the quartz glass in the lamp will be reduced and the lamp may rupture (often making a loud noise when this happens). If the lamp reputres, the TV will not operate until the lamp unit is replaced.

Note: The lamp unit is designed so broken lamp glass remains securely inside the lamp unit.

CAUTION: Always handle the lamp unit with care.
The lamp unit in this TV was designed for safe replacement by consumers; however, if the lamp unit is subjected to intentional abuse (such as excessive mechanical abuse or handling by children or pets), the unit may break, exposing edges or pinch points.

When to replace the lamp unit

You should replace the lamp unit:

- if the picture darkens and/or colors fade;
- if the lamp does not light; or
- If you hear a loud noise and the picture goes black, which may indicate a lamp rupture (LED indication #8). See LED indications on page 6.

Note: Be sure wear the gloves before replacing the lamp unit.

1. Turn off the TV and unplug the power cord.

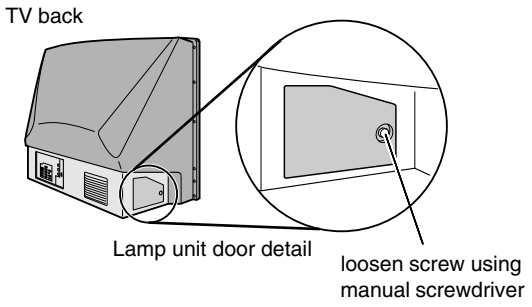
WARNING: Eye damage may result from directly viewing the light produced by this lamp. Always turn off the TV and unplug the power cord before opening the lamp unit door.

2. STOP! Allow the lamp to cool for at least one (1) hour before replacing it.

CAUTION: HOT SURFACE

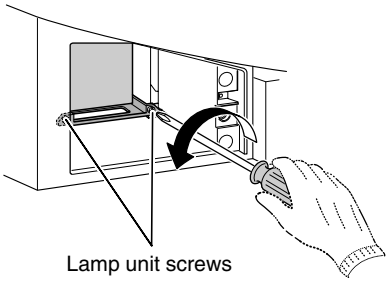
The temperature of the lamp immediately after use exceeds 392 F (200 C). Touching the lamp at this temperature will result in injury. **ALLOW THE LAMP TO COOL FOR AT LEAST ONE (1) HOUR BEFORE REPLACING IT.**

3. On the lamp unit door on the side of the TV, loosen the screw using a manual screw driver, and then remove the lamp unit door.

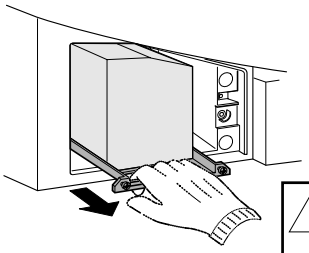


WARNING: The lamp unit door is provided with an interlock to reduce the risk of electric shock and excessive ultraviolet radiation. **Never defeat its purpose or attempt to service without removing the lamp unit door completely.** Failure to follow this WARNING may result in death or serious injury.

4. Using a manual screwdriver, loosen the two screws on the lamp unit.

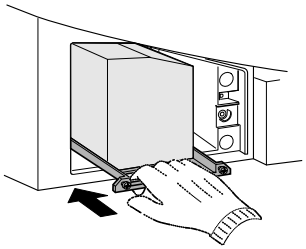


5. Grasp the lamp unit handle and gently pull the lamp unit straight out of the TV. Set the old lamp unit aside.



Note: Wear solt, lint-free gloveswhen replacing the lamp unit.

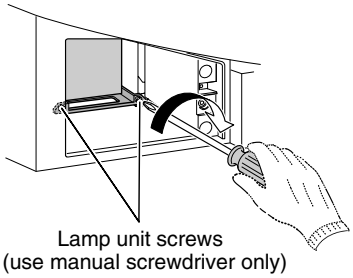
6. Carefully insert the new lamp unit straight into the TV until it is fully seated.



Note :

- Never subject the lamp unit to excessive shock.
- Never touch the lamp unit glass or otherwise get it dirty.
- Doing so may affect the image quality and reduce the service life of the lamp. See “Cleaning the lamp unit glass” below.

7. Using a manual screwdriver, tighten two lamp unit screws.
Note:Hand-tighten only. Do not use an electric screwdriver.

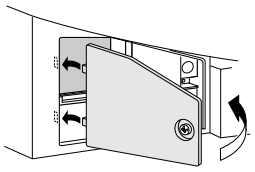


Cleaning the lamp unit glass

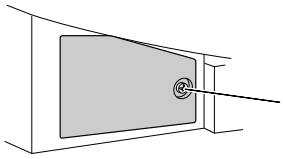
If you accidentally touch the lamp unit glass or otherwise get it dirty, wipe it with a lint-free lens cleaning cloth (such as a cloth for cleaning camera lenses or eyeglasses).

CAUTION: NEVER clean a hot lamp with any type of flammable liquid or aerosol cleaning agent. Many ordinary cleaning agents (such as glass cleaners) contain chemicals that may be flammable at certain temperatures. If the lamp unit is not allowed to cool for at least one (1) hour, such chemicals may ignite.

8. Reattach the lamp unit door, making sure to insert the hooks on the left side of the lamp unit door inside the opening in the TV cabinet.



9. Replace the screw and hand-tighten using a manual screwdriver.



NOTE : Make sure the lamp unit door is installed securely; otherwise, the TV may not turn on.

10. Plug in the power cord and turn on the TV. After the initial warmup period (which may take several seconds for full picture brightness), the TV should operate normally. If any of the following conditions exist, turn off the TV, unplug the power cord, and repeat steps 1-9 to ensure that the lamp unit and lamp unit door are installed correctly:
    - No picture
    - Dark picture
    - TV will not turn on

LIGHT ENGINE REPLACEMENT

Cautions when replacing LIGHT ENGINE

LIGHT ENGINE UNIT:

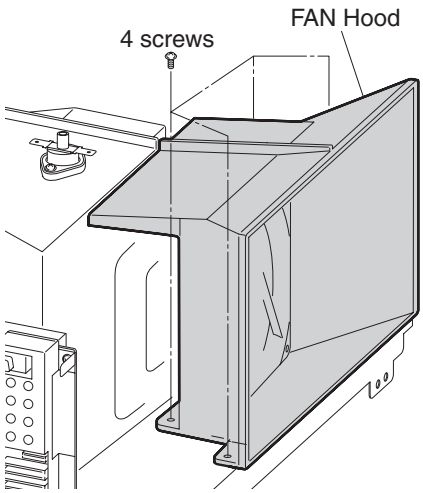
A271 : LV-682 TB
(Including with E998Z, SK01 to SK04, SK06,SK08 and SK09.)

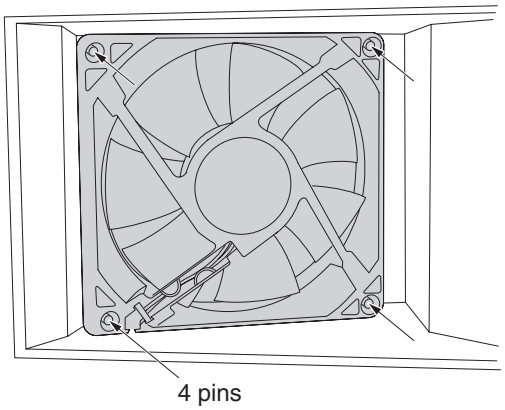
- LIGHT ENGINE is a heart of the TV and emits high heat. Make sure to replace it after turning off the TV and wait for sufficient cool down. (More than one hour is recommended.)
- Do not impact during replacement; otherwise, some parts may be damaged.
- Do not touch optical lens. Adhesion of dirt may deteriorate its performance.
- Do not loosen any screw other than those to be removed for adjustment or replacement.
- LIGHT ENGINE emits ultraviolet rays when the TV is ON. Make sure to be careful.

PARTS REPLACEMENT IN LIGHT ENGINE

1. Replacement of Lamp FAN (SK01)

1-1. Replace the FAN for cooling Lamp (SK01), remove the 4 screws on the FAN Hood, and remove the 4 pins by pressing toward allows using a screwdriver, and the remove the FAN for cooling Lamp.
NOTE:
Reinstalling the FAN for cooling Lamp, attach the 4 pins by using removed them after replace the FAN.

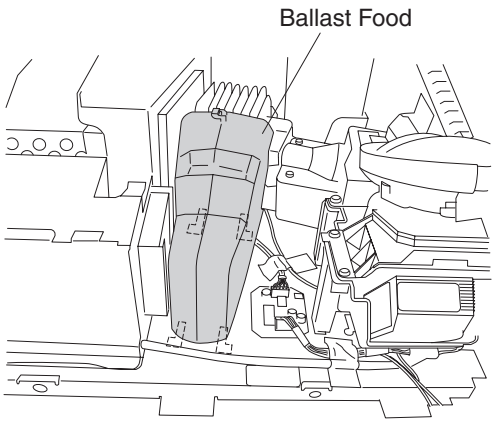


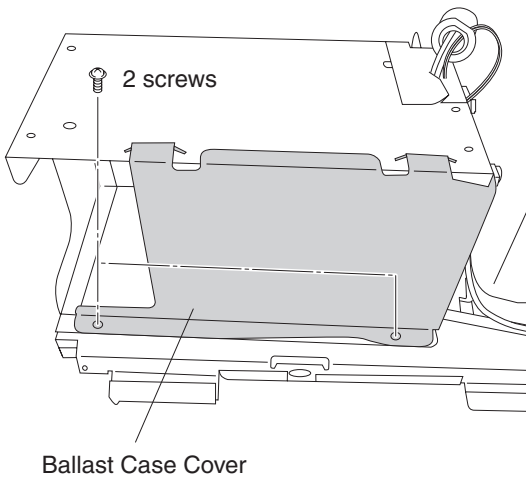


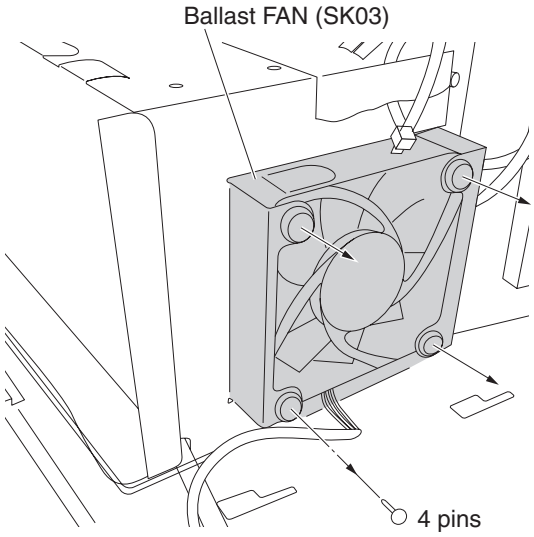
2. Replacement of Ballast FAN (SK03)

2-1. Replace the FAN for cooling Ballast Power Unit (SK03), remove the Ballast Hood, and remove the 2 screws on the Ballast Case Cover.

2-2. Remove the 4 pins by pressing toward inside of the FAN using a screwdriver, and then remove the 4 pins toward allows as figure.
Remove the FAN for cooling Ballast Power Unit.
NOTE:
Reinstalling the FAN for cooling Ballast Power Unit, attach the 4 pins by using removed them after replacing the FAN.

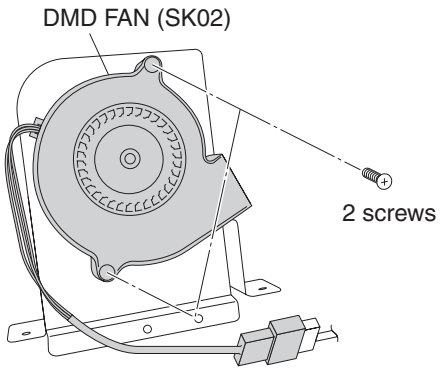


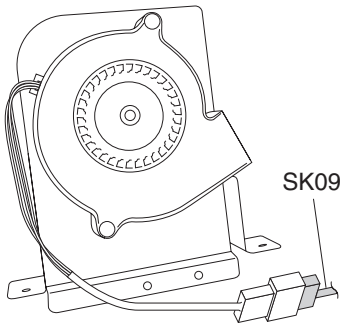




3-2. Remove the 2 screws from the bracket, and then remove the FAN for cooling Formatter Board (SK02).

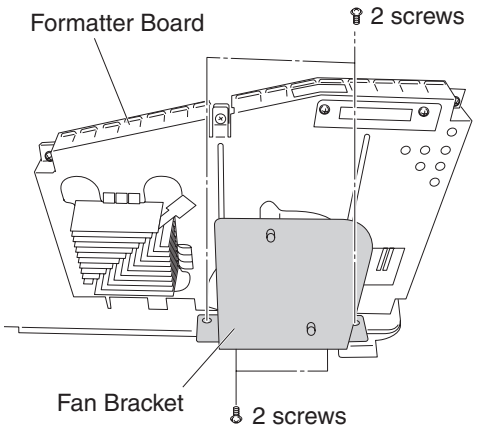
3-3. Disconnect and replace the FAN transfer cable between Ballast and Formatter Boards (SK09).





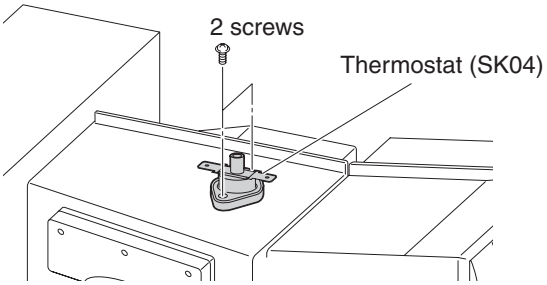
3. Replacement of DMD FAN (SK02) and FAN Transfer Cable (SK09)

3-1. Replace the FAN for cooling Formatter Board, detach the Fan Bracket with DMD FAN by removing the 4 screws on the bracket.



4. Replacement of Thermostat (Lamp Sensor) (SK04)

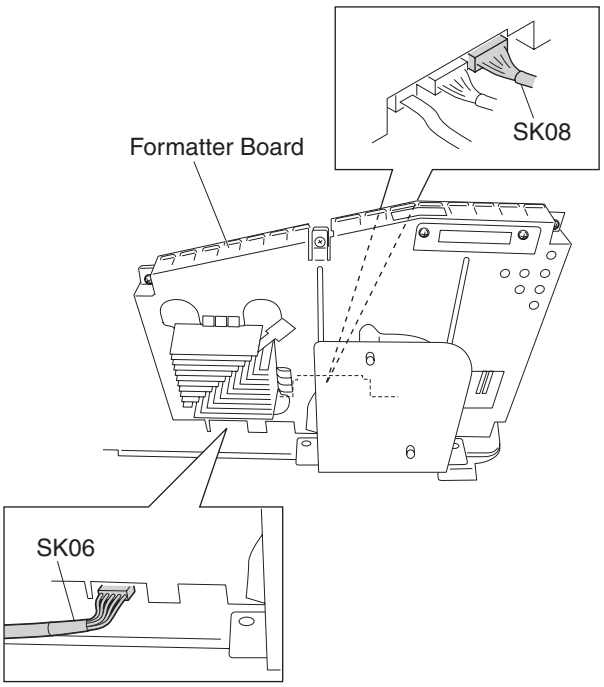
4-1. Replace the Thermostat (Lamp Sensor) (SK04), remove 2 screws on the Thermostat.



5. Replacement of Ballast to Formatter Board Cables (SK06 and SK08)

5-1. Disconnect and replace the cable between Ballast and Formatter Boards (SK06).

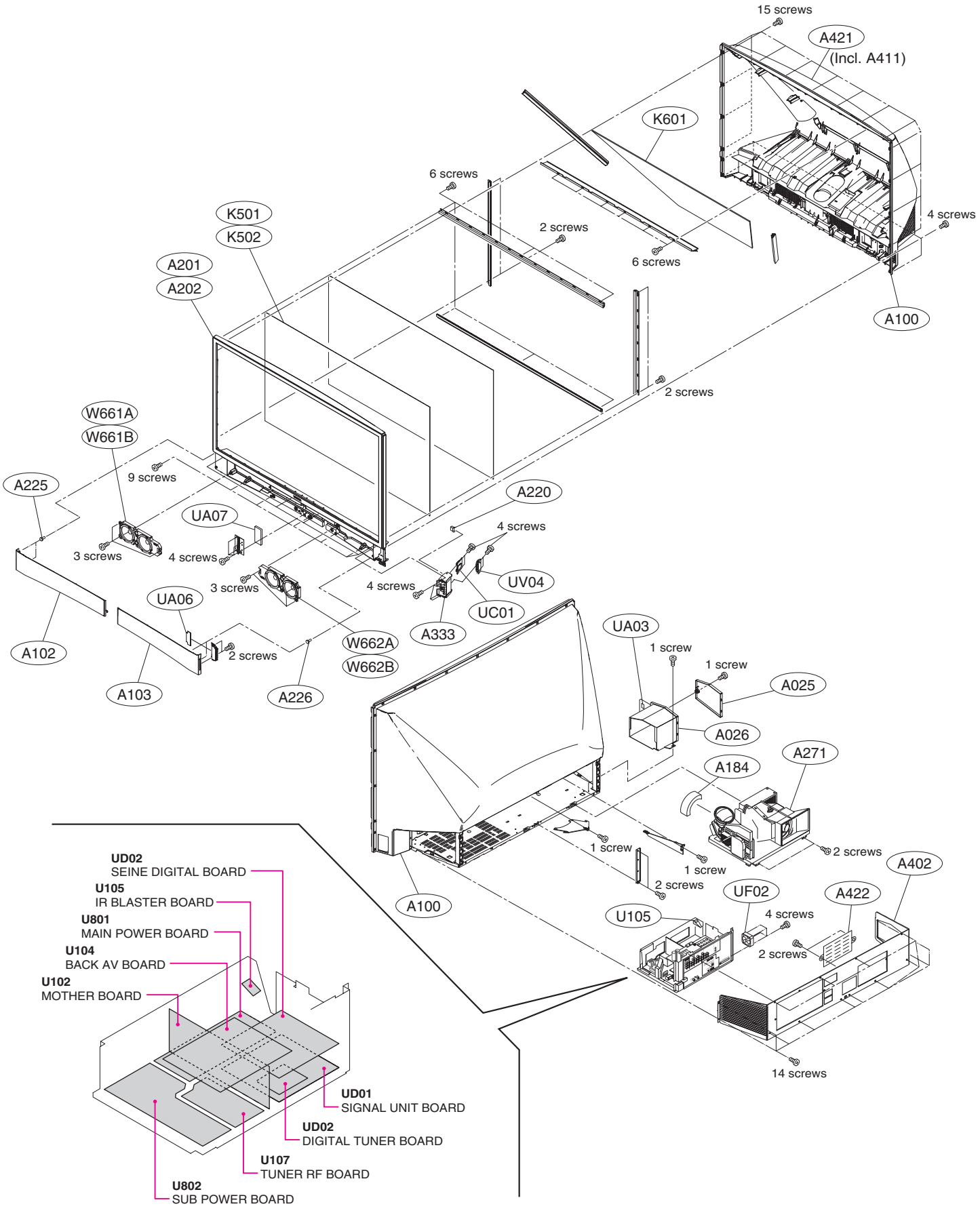
5-2. Disconnect and replace the cable between Smooth Picture and Formatter Boards (SK08).



6. LIGHT ENGINE UNIT

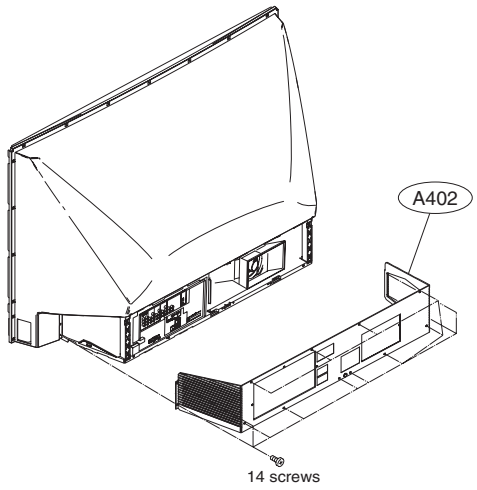
Location No.	Parts No.	Description
⚠ A271	23405480	OPTICAL ENGINE LV-682 TB 0C 56HM195 (Incl. E998Z, SK01-SK04, SK06,SK08,SK09)
⚠	23405481	OPTICAL ENGINE LV-682 TB 0D 62HM195 (Incl. E998Z, SK01-SK04, SK06,SK08,SK09)
	23405482	OPTICAL ENGINE LV-682 TB 0E 72HM195 (Incl. E998Z, SK01-SK04, SK06,SK08,SK09)
E998Z	23311153	EXCHANGE LAMP, PJ-D95-LMP
SK01	23587525	SERVICE KIT, LAMP FAN
SK02	23587526	SERVICE KIT, DMD FAN
SK03	23587527	SERVICE KIT, BALLAST FAN
SK04	23587528	SERVICE KIT, THERMOSTAT
SK06	23587536	SERVICE KIT, B TO F CABLE
SK08	23587538	SERVICE KIT, S TO F CABLE
SK09	23587539	SERVICE KIT, FAN TRANSFER CABLE

EXPLODED VIEW

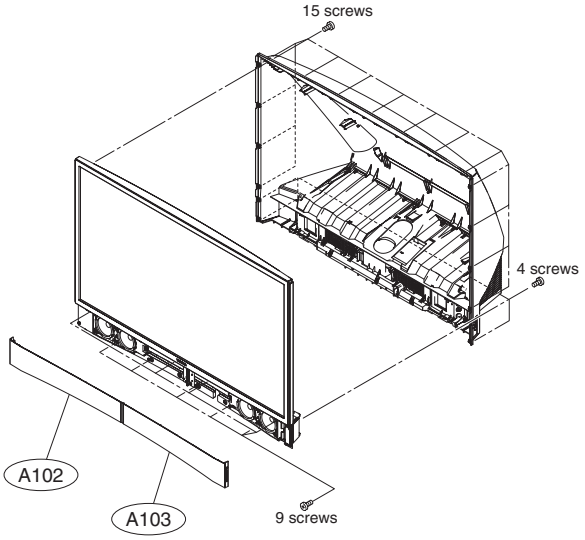


MECHANICAL DISASSEMBLY

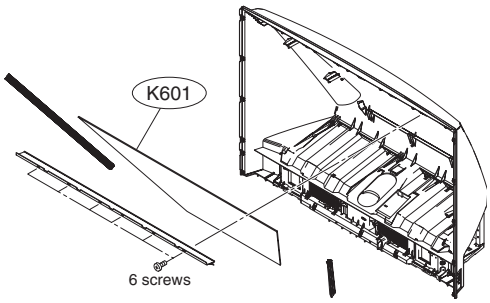
1. Rear Cover Removal



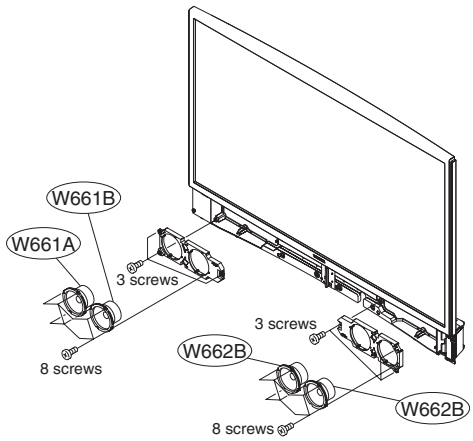
2. Touchpad & Bezel Ass'y Removal



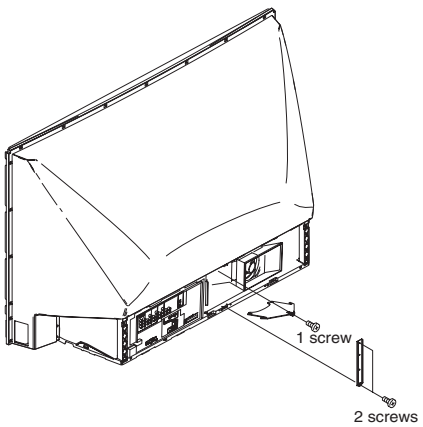
3. Mirror Removal



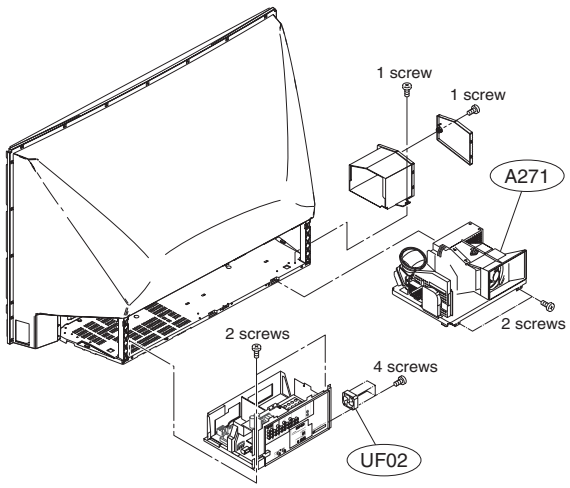
4. Speaker Removal



5. Bracket Removal



6. Optical Engine Removal



CHASSIS AND CABINET REPLACEMENT PARTS LIST

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF THIS MANUAL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE. Do not degrade the safety of the receiver through improper servicing.

NOTICE:

The part number must be used when ordering parts, in order to assist in processing, be sure to include the Model number and Description.

The PC board assembly with ∗ mark is no longer available after the end of the production.

Model : 56/62/72HM195

Capacitors	CD	: Ceramic Disk	PF	: Plastic Film	EL	: Electrolytic
Resistors	CF	: Carbon Film	CC	: Carbon Composition	MF	: Metal Film
	OMF	: Oxide Metal Film	VR	: Variable Resistor	FR	: Fusible Resistor

(All CD and PF capacitors are ±5%, 50V and all resistors, ±5%, 1/6W unless otherwise noted.)

Location No.	Parts No.	Description
#1 : [56HM195]		
#2 : [62HM195]		
#3 : [72HM195]		
CAPACITORS		
C001	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C002	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C003	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C004	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C005	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C006	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C007	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C008	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C009	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C010	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C011	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C012	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C013	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C014	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C015	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C016	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C017	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C018	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C019	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C020	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C021	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C022	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C023	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C024	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C025	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C026	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C027	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C028	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C029	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C030	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C031	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C032	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C033	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C034	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C035	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C036	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C037	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C038	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C039	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C040	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C041	76100104	CERAMIC CHIP, 25V F 0.1UF Z

Location No.	Parts No.	Description
C042	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C043	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C044	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C045	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C046	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C047	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C048	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C049	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C050	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C051	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C102	76665221	ELECTROLYTIC, 10V 220UF M 3A
C103	76109102	CERAMIC CHIP, 50V B 1000PF K
C104	76073084	ELECTROLYTIC, 50V 4.7UF M 3A
C120	76092730	CERAMIC CHIP, 16V B 0.1UF K
C151	76109102	CERAMIC CHIP, 50V B 1000PF K
C152	76109102	CERAMIC CHIP, 50V B 1000PF K
C161	76109102	CERAMIC CHIP, 50V B 1000PF K
C162	76105101	CERAMIC CHIP, 50V CH 100PF J
C164	76092730	CERAMIC CHIP, 16V B 0.1UF K
C601	76109391	CERAMIC CHIP, 50V B 390PF K
C602	76109391	CERAMIC CHIP, 50V B 390PF K
C603	76797100	ELECTROLYTIC, 50V 10UF M
C604	76797100	ELECTROLYTIC, 50V 10UF M
C605	76073084	ELECTROLYTIC, 50V 4.7UF M 3A
C606	76073084	ELECTROLYTIC, 50V 4.7UF M 3A
C607	76073052	ELECTROLYTIC, 25V 47UF M 3A
C608	76073052	ELECTROLYTIC, 25V 47UF M 3A
C609	76073068	ELECTROLYTIC, 35V 100UF M 3A
C610	76073086	ELECTROLYTIC, 50V 10UF M 3A
C612	76073039	ELECTROLYTIC, 16V 220UF M 3A
C613	76503042	PLASTIC FILM, 63V 0.12UF J
C614	76503042	PLASTIC FILM, 63V 0.12UF J
C615	76073095	ELECTROLYTIC, 50V 2200UF M 3A
C616	76073095	ELECTROLYTIC, 50V 2200UF M 3A
C661	76766479	ELECTROLYTIC, 50V 4.7UF M
C662	76797100	ELECTROLYTIC, 50V 10UF M
C663	76797100	ELECTROLYTIC, 50V 10UF M
C664	76108560	CERAMIC CHIP, 50V SL 56PF J
C665	76567103	PLASTIC FILM, 50V 0.01UF J
C666	76766479	ELECTROLYTIC, 50V 4.7UF M
C667	76794100	ELECTROLYTIC, 16V 10UF M
C668	76108560	CERAMIC CHIP, 50V SL 56PF J
C680	76073094	ELECTROLYTIC, 50V 1000UF M 3A
C681	76109103	CERAMIC CHIP, 50V B 0.01UF K
C687	76796101	ELECTROLYTIC, 35V 100UF M
C688	76795470	ELECTROLYTIC, 25V 47UF M

Location No.	Parts No.	Description
⚠ C801	76503004	PLASTIC FILM, AC275V 0.47UF M
⚠ C803	76503002	PLASTIC FILM, AC275V 0.22UF M
C805	76092281	CERAMIC DISC, AC250V E 4700PF
C808	76095634	PLASTIC FILM, 630V 0.01UF H
C809	76086067	CHEMICON 200V 102M LGQ2D102MESHTL
C810	76086067	CHEMICON 200V 102M LGQ2D102MESHTL
⚠ C811	76092567	CERAMIC DISC, AC250V E 1000PF M
⚠ C812	76092567	CERAMIC DISC, AC250V E 1000PF M
C815	76285104	CERAMIC CHIP, 50V B 0.1UF K
C816	76669470	ELECTROLYTIC, 50V 47UF M
C817	76092179	CERAMIC CHIP, 25V B 0.22UF K
C818	76285104	CERAMIC CHIP, 50V B 0.1UF K
C819	76214102	CERAMIC DISC, 500V B 1000PF K
C820	76092463	CERAMIC CHIP, 16V B 0.22UF K
C821	76092343	CERAMIC DISC, 2KV 680PF K
C822	76092344	CERAMIC DISC, 2KV 820PF K
C823	76092337	CERAMIC DISC, 2KV 220PF K
C824	76109472	CERAMIC CHIP, 50V B 4700PF K
⚠ C825	76503117	PLASTIC FILM CQ92 T 800V 33000PF J
C826	76092338	CERAMIC DISC, 2KV R 270PF K
C827	76503053	PLASTIC FILM, 63V 1UF J
C828	76214103	CERAMIC DISC, 500V B 0.01UF K
C829	76678229	ELECTROLYTIC, 200V 2.2UF M
C840	76092730	CERAMIC CHIP, 16V B 0.1UF K
C855	76073157	ELECTROLYTIC, 16V 1500UF M 3A
C856	76073157	ELECTROLYTIC, 16V 1500UF M 3A
C857	76073172	ELECTROLYTIC, 25V 1000UF M 3A
C860	76073205	ELECTROLYTIC CE04P 50V 470UF M 3A
C870	76092178	CERAMIC CHIP, 25V B 0.1UF K
C898	76092178	CERAMIC CHIP, 25V B 0.1UF K
⚠ C899	76092567	CERAMIC DISC, AC250V E 1000PF M
C8905	76666221	ELECTROLYTIC, 16V 220UF M
C8910	76092738	CERAMIC CHIP, 25V B 0.47UF K
C8911	76073151	ELECTROLYTIC, 16V 120UF M 3A
C8920	76073053	ELECTROLYTIC, 25V 100UF M 3A
C8921	76092738	CERAMIC CHIP, 25V B 0.47UF K
C8922	76667470	ELECTROLYTIC, 25V 47UF M 3A
C8923	76666331	ELECTROLYTIC, 16V 330UF M
C8924	76092730	CERAMIC CHIP, 16V B 0.1UF K
C8931	76092738	CERAMIC CHIP, 25V B 0.47UF K
C8932	76667470	ELECTROLYTIC, 25V 47UF M 3A
C8933	76666331	ELECTROLYTIC, 16V 330UF M
C8934	76092730	CERAMIC CHIP, 16V B 0.1UF K
C8960	76092616	CERAMIC CHIP, 16V B 0.33UF K
C8961	76092730	CERAMIC CHIP, 16V B 0.1UF K
CB01	76794470	ELECTROLYTIC, 16V 47UF M
CB51	76590103	PLASTIC FILM, 50V 0.01UF J
CB52	76794470	ELECTROLYTIC, 16V 47UF M
CB53	76503041	PLASTIC FILM , 63V 0.1UF J
CB54	76436221	CERAMIC DISC, 50V SL 220PF J
CB55	76797010	ELECTROLYTIC, 50V 1UF M
CB56	76794470	ELECTROLYTIC, 16V 47UF M
CB58	76794470	ELECTROLYTIC, 16V 47UF M
CB59	76590103	PLASTIC FILM, 50V 0.01UF J
CB60	76794100	ELECTROLYTIC, 16V 10UF M
CB61	76503041	PLASTIC FILM , 63V 0.1UF J
CB82	76567474	PLASTIC FILM, 50V 0.47UF J
CB503	76092730	CERAMIC CHIP, 16V B 0.1UF K
CB504	76794100	ELECTROLYTIC, 16V 10UF M
CB505	76092730	CERAMIC CHIP, 16V B 0.1UF K
CB506	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CB507	76092730	CERAMIC CHIP, 16V B 0.1UF K
CB508	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CB509	76794101	ELECTROLYTIC, 16V 100UF M
CB510	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CC01	76109102	CERAMIC CHIP, 50V B 1000PF K @U104
	76092730	CERAMIC CHIP, 16V B 0.1UF K @UC01
CC02	76109102	CERAMIC CHIP, 50V B 1000PF K @U104
	76092730	CERAMIC CHIP, 16V B 0.1UF K @UC01
CC03	76109102	CERAMIC CHIP, 50V B 1000PF K @U104
	76092730	CERAMIC CHIP, 16V B 0.1UF K @UC01
CC04	76109102	CERAMIC CHIP, 50V B 1000PF K @U104
	76619100	ELECTROLYTIC CHIP, 16V 10UF M @UC01
CC05	76109102	CERAMIC CHIP, 50V B 1000PF K @U104
	76092730	CERAMIC CHIP, 16V B 0.1UF K @UC01
CC06	76109102	CERAMIC CHIP, 50V B 1000PF K @U104

Location No.	Parts No.	Description
	76092730	CERAMIC CHIP, 16V B 0.1UF K @UC01
CC07	76109102	CERAMIC CHIP, 50V B 1000PF K @U104
	76619100	ELECTROLYTIC CHIP, 16V 10UF M @UC01
CC08	76109102	CERAMIC CHIP, 50V B 1000PF K @U104
	76092730	CERAMIC CHIP, 16V B 0.1UF K @UC01
CC09	76109102	CERAMIC CHIP, 50V B 1000PF K @U104
	76092730	CERAMIC CHIP, 16V B 0.1UF K @UC01
CC10	76109102	CERAMIC CHIP, 50V B 1000PF K @U104
	76092730	CERAMIC CHIP, 16V B 0.1UF K @UC01
CC11	76109102	CERAMIC CHIP, 50V B 1000PF K @U104
	76619100	ELECTROLYTIC CHIP, 16V 10UF M @UC01
CC12	76109102	CERAMIC CHIP, 50V B 1000PF K @U104
	76092538	CERAMIC CHIP, 10V F 1UF Z @UC01
CC13	76109102	CERAMIC CHIP, 50V B 1000PF K @U104
	76092730	CERAMIC CHIP, 16V B 0.1UF K @UC01
CC14	76109102	CERAMIC CHIP, 50V B 1000PF K @U104
	76092730	CERAMIC CHIP, 16V B 0.1UF K @UC01
CC15	76109102	CERAMIC CHIP, 50V B 1000PF K @U104
	76619100	ELECTROLYTIC CHIP, 16V 10UF M @UC01
CC16	76109102	CERAMIC CHIP, 50V B 1000PF K @U104
	76092730	CERAMIC CHIP, 16V B 0.1UF K @UC01
CC17	76619100	ELECTROLYTIC CHIP, 16V 10UF M
CC18	76092730	CERAMIC CHIP, 16V B 0.1UF K
CC19	76092730	CERAMIC CHIP, 16V B 0.1UF K
CC20	76619100	ELECTROLYTIC CHIP, 16V 10UF M
CC21	76092730	CERAMIC CHIP, 16V B 0.1UF K
CC22	76092538	CERAMIC CHIP, 10V F 1UF Z
CC24	76092538	CERAMIC CHIP, 10V F 1UF Z
CC25	76092538	CERAMIC CHIP, 10V F 1UF Z
CC26	76092730	CERAMIC CHIP, 16V B 0.1UF K
CC27	76092730	CERAMIC CHIP, 16V B 0.1UF K
CC28	76619102	ELECTROLYTIC CHIP, 16V 47UF M
CC30	76619100	ELECTROLYTIC CHIP, 16V 10UF M
CC31	76092730	CERAMIC CHIP, 16V B 0.1UF K
CC33	76092730	CERAMIC CHIP, 16V B 0.1UF K
CC34	76092730	CERAMIC CHIP, 16V B 0.1UF K
CC36	76619100	ELECTROLYTIC CHIP, 16V 10UF M
CC40	76092538	CERAMIC CHIP, 10V F 1UF Z
CC41	76092730	CERAMIC CHIP, 16V B 0.1UF K
CC42	76109103	CERAMIC CHIP, 50V B 0.01UF K
⚠ CE01	76503002	PLASTIC FILM, AC275V 0.22UF M
CE04	76092281	CERAMIC DISC, AC250V E 4700PF
CE05	76092281	CERAMIC DISC, AC250V E 4700PF
⚠ CE08	76503253	PLASTIC FILM, 1250VH 0.01UF H
CE09	76092337	CERAMIC DISC, 2KV 220PF K
CE10	76073217	ELECTROLYTIC, 200V 560UF M
⚠ CE11	76092565	CERAMIC DISC, AC250V B 470PF K
⚠ CE12	76092565	CERAMIC DISC, AC250V B 470PF K
⚠ CE13	76092565	CERAMIC DISC, AC250V B 470PF K
CE19	76073019	ELECTROLYTIC, 10V 470UF M 3A
CE30	76073183	ELECTROLYTIC, 35V 220UF M
CE31	76092730	CERAMIC CHIP, 16V B 0.1UF K
CE32	76073153	ELECTROLYTIC, 16V 470UF M 3A
CE33	76092730	CERAMIC CHIP, 16V B 0.1UF K
CE34	76109103	CERAMIC CHIP, 50V B 0.01UF K
CE35	76073168	ELECTROLYTIC CE04P 25V 330UF M 3A
CE36	76092730	CERAMIC CHIP, 16V B 0.1UF K
CE37	76073153	ELECTROLYTIC, 16V 470UF M 3A
CE38	76092730	CERAMIC CHIP, 16V B 0.1UF K
CE39	76109103	CERAMIC CHIP, 50V B 0.01UF K
CE40	76666470	ELECTORLYTIC, 16V 47UF M 3A
CE41	76092616	CERAMIC CHIP, 16V B 0.33UF K
CE42	76073137	ELECTROLYTIC CE04P 10V 100UF M 3A
CE48	76073168	ELECTROLYTIC CE04P 25V 330UF M 3A
CE49	76073183	ELECTROLYTIC, 35V 220UF M
CE50	76667470	ELECTROLYTIC, 25V 47UF M 3A
CE51	76092738	CERAMIC CHIP, 25V B 0.47UF K
CE52	76073151	ELECTROLYTIC, 16V 120UF M 3A
CE53	76666470	ELECTORLYTIC, 16V 47UF M 3A
CE54	76092616	CERAMIC CHIP, 16V B 0.33UF K
CE55	76073137	ELECTROLYTIC CE04P 10V 100UF M 3A
CE57	76667470	ELECTROLYTIC, 25V 47UF M 3A
CE58	76092738	CERAMIC CHIP, 25V B 0.47UF K
CE59	76073151	ELECTROLYTIC, 16V 120UF M 3A
CE61	76092339	CERAMIC DISC, 2KV 330PF K
CE62	76503049	PLASTIC FILM, 63V 0.47UF J

Location No.	Parts No.	Description
CE63	76669339	ELECTROLYTIC, 50V 3.3UF M
CE64	76503041	PLASTIC FILM , 63V 0.1UF J
CE65	76214221	CERAMIC DISC, 500V B 220PF K
CE68	76073180	ELECTROLYTIC CE04P 35V 33UF M 3A
CE72	76591471	PLASTIC FILM, 50V 470PF J
CE81	76214331	CERAMIC DISC, 500V B 330PF K
CE82	76214331	CERAMIC DISC, 500V B 330PF K
CE83	76214331	CERAMIC DISC, 500V B 330PF K
CE85	76073159	ELECTROLYTIC CE04P 16V 2700UF M 3A
CE86	76073174	ELECTROLYTIC, 25V 1500UF M 3A
CE87	76073189	ELECTROLYTIC, 35V 1000UF M
CE88	76676470	ELECTROLYTIC, 100V 47UF M 3A
CE89	76503041	PLASTIC FILM , 63V 0.1UF J
CE90	76073152	ELECTROLYTIC, 16V 330UF M 3A
CE91	76214102	CERAMIC DISC, 500V B 1000PF K
CE92	76109103	CERAMIC CHIP, 50V B 0.01UF K
CE93	76109103	CERAMIC CHIP, 50V B 0.01UF K
CE94	76109103	CERAMIC CHIP, 50V B 0.01UF K
CE95	76109103	CERAMIC CHIP, 50V B 0.01UF K
CF09	76073154	ELECTROLYTIC CE04P 16V 680UF M 3A
CF10	76073154	ELECTROLYTIC CE04P 16V 680UF M 3A
CF11	76092730	CERAMIC CHIP, 16V B 0.1UF K
CF12	76073154	ELECTROLYTIC CE04P 16V 680UF M 3A
CF13	76105471	CERAMIC CHIP, 50V CH 470PF J
CF14	76092731	CERAMIC CHIP, 16V B 1UF K
CF15	76109332	CERAMIC CHIP, 50V B 3300PF K
CF16	76109472	CERAMIC CHIP, 50V B 4700PF K
CF17	76815473	CERAMIC CHIP, 50V B 0.047UF K
CF18	76092790	CERAMIC CHIP CK732B 6.3V 10UF K
CF19	76073126	ELECTROLYTIC CE04P 6.3V 330UF M 3A
CF20	76092789	CERAMIC CHIP, 6.3V B 1UF K
CF21	76092789	CERAMIC CHIP, 6.3V B 1UF K
CF22	76073126	ELECTROLYTIC CE04P 6.3V 330UF M 3A
CF23	76092789	CERAMIC CHIP, 6.3V B 1UF K
CF24	76092789	CERAMIC CHIP, 6.3V B 1UF K
CF25	76092790	CERAMIC CHIP CK732B 6.3V 10UF K
CF26	76109103	CERAMIC CHIP, 50V B 0.01UF K
CF27	76109102	CERAMIC CHIP, 50V B 1000PF K
CF28	76092790	CERAMIC CHIP CK732B 6.3V 10UF K
CF29	76092790	CERAMIC CHIP CK732B 6.3V 10UF K
CF30	76073153	ELECTROLYTIC, 16V 470UF M 3A
CF31	76092731	CERAMIC CHIP, 16V B 1UF K
CF32	76073126	ELECTROLYTIC CE04P 6.3V 330UF M 3A
CF33	76092789	CERAMIC CHIP, 6.3V B 1UF K
CF34	76092730	CERAMIC CHIP, 16V B 0.1UF K
CF35	76092731	CERAMIC CHIP, 16V B 1UF K
CF36	76092789	CERAMIC CHIP, 6.3V B 1UF K
CF37	76073126	ELECTROLYTIC CE04P 6.3V 330UF M 3A
CF38	76073126	ELECTROLYTIC CE04P 6.3V 330UF M 3A
CF90	76667101	ELECTROLYTIC, 25V 100UF M
CF91	76073168	ELECTROLYTIC CE04P 25V 330UF M 3A
CF92	76092730	CERAMIC CHIP, 16V B 0.1UF K
CS01	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS02	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS03	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS04	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS05	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS06	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS07	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS08	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS09	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS10	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS11	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS12	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS13	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS14	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS15	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS16	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS17	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS18	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS19	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS20	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS21	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS22	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS23	76109103	CERAMIC CHIP, 50V B 0.01UF K
CS24	76794101	ELECTROLYTIC, 16V 100UF M

Location No.	Parts No.	Description
CS25	76794220	ELECTROLYTIC, 16V 22UF M
CS31	76794100	ELECTROLYTIC, 16V 10UF M
CS32	76794100	ELECTROLYTIC, 16V 10UF M
CS33	76797229	ELECTROLYTIC, 50V 2.2UF M
CV13	76794100	ELECTROLYTIC, 16V 10UF M
CV14	76232103	CERAMIC DISC, 50V F 0.01UF Z
CV15	76232103	CERAMIC DISC, 50V F 0.01UF Z
CV40	76793101	ELECTROLYTIC, 10V 100UF M
CV41	76109103	CERAMIC CHIP, 50V B 0.01UF K
CV43	76105330	CERAMIC CHIP, 50V CH 33PF J
CV44	76105270	CERAMIC CHIP, 50V CH 27PF J
CV45	76105220	CERAMIC CHIP, 50V CH 22PF J
CV61	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CV62	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CV63	76794100	ELECTROLYTIC, 16V 10UF M
CV64	76794471	ELECTROLYTIC, 16V 470UF M
CV65	76794101	ELECTROLYTIC, 16V 100UF M
CV66	76100104	CERAMIC CHIP, 25V F 0.1UF Z
CV67	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CV71	76794100	ELECTROLYTIC, 16V 10UF M
CV72	76794100	ELECTROLYTIC, 16V 10UF M
CV74	76794100	ELECTROLYTIC, 16V 10UF M
CV75	76794100	ELECTROLYTIC, 16V 10UF M
CV76	76794100	ELECTROLYTIC, 16V 10UF M
CV77	76794100	ELECTROLYTIC, 16V 10UF M
CV78	76109103	CERAMIC CHIP, 50V B 0.01UF K
CV80	76793471	ELECTROLYTIC, 10V 470UF M
CV87	76109103	CERAMIC CHIP, 50V B 0.01UF K
CV200	76794100	ELECTROLYTIC, 16V 10UF M
CV201	76794100	ELECTROLYTIC, 16V 10UF M
CV202	76085981	ELECTROLYTIC, NP, 16V 10UF M 11L
CV203	76109103	CERAMIC CHIP, 50V B 0.01UF K
RESISTORS		
R103	76011101	CHIP, 1/20W 100 OHM J
R104	76011103	CHIP, 1/20W 10K OHM J
R105	76011273	CHIP, 1/20W 27K OHM J
R107	76000445	CHIP JUMPER, 1608TYPE
R108	76000445	CHIP JUMPER, 1608TYPE
R110	76011682	CHIP, 1/20W 6.8K OHM J
R114	76000445	CHIP JUMPER, 1608TYPE
R161	76011102	CHIP, 1/20W 1K OHM J
R165	76011392	CHIP, 1/20W 3.9K OHM J
R166	76011472	CHIP, 1/20W 4.7K OHM J
R167	76011101	CHIP, 1/20W 100 OHM J
R168	76011101	CHIP, 1/20W 100 OHM J
R601	76011272	CHIP, 1/20W 2.7K OHM J
R602	76011272	CHIP, 1/20W 2.7K OHM J
R603	76011152	CHIP, 1/20W 1.5K OHM J
R604	76011152	CHIP, 1/20W 1.5K OHM J
R609	76366229	CARBON FILM, 1/6W 2.2 OHM J
R610	76366229	CARBON FILM, 1/6W 2.2 OHM J
R611	76011103	CHIP, 1/20W 10K OHM J
R612	76011222	CHIP, 1/20W 2.2K OHM J
R613	76011223	CHIP, 1/20W 22K OHM J
R614	76011223	CHIP, 1/20W 22K OHM J
R661	76011102	CHIP, 1/20W 1K OHM J
R662	76011562	CHIP, 1/20W 5.6K OHM J
R663	76011822	CHIP, 1/20W 8.2K OHM J
R665	76011223	CHIP, 1/20W 22K OHM J
R666	76011473	CHIP, 1/20W 47K OHM J
R667	76011223	CHIP, 1/20W 22K OHM J
R668	76011473	CHIP, 1/20W 47K OHM J
R671	76011102	CHIP, 1/20W 1K OHM J
R672	76011562	CHIP, 1/20W 5.6K OHM J
R673	76011822	CHIP, 1/20W 8.2K OHM J
R674	76011472	CHIP, 1/20W 4.7K OHM J
R676	76011104	CHIP, 1/20W 100K OHM J
R677	76011104	CHIP, 1/20W 100K OHM J
R683	76011223	CHIP, 1/20W 22K OHM J
R684	76011223	CHIP, 1/20W 22K OHM J
R687	76011103	CHIP, 1/20W 10K OHM J
R688	76011224	CHIP, 1/20W 220K OHM J
R697	76553152	OXIDE METAL FILM, 1W 1.5K OHM J
R698	76011103	CHIP, 1/20W 10K OHM J
R699	76011103	CHIP, 1/20W 10K OHM J

Location No.	Parts No.	Description
R803	76011333	CHIP, 1/20W 33K OHM J
R805	76120001	CEMENT RES 141C 2.1W 1R8 K
R807	76011223	CHIP, 1/20W 22K OHM J
R808	76552470	OXIDE METAL FILM, 1/2W 47 OHM J
R809	76321689	OXIDE METAL FILM, 1/2W 6.8 OHM J
R810	76382150	OXIDE METAL FILM, 1W 15 OHM J
R811	76552820	OXIDE METAL FILM, 1/2W 82 OHM J
R812	76552390	OXIDE METAL FILM, 1/2W 39 OHM J
R813	76366150	CARBON FILM, 1/6W 15 OHM J
R814	76871473	CHIP, 1/8W 47K OHM J
R815	76552100	OXIDE METAL FILM, 1/2W 10 OHM J
R816	76011102	CHIP, 1/20W 1K OHM J
R817	76871473	CHIP, 1/8W 47K OHM J
R818	76871473	CHIP, 1/8W 47K OHM J
R819	76871473	CHIP, 1/8W 47K OHM J
R820	76871473	CHIP, 1/8W 47K OHM J
R821	76871105	CHIP, 1/8W 1M OHM J
R822	76871105	CHIP, 1/8W 1M OHM J
R823	76871105	CHIP, 1/8W 1M OHM J
R824	76871105	CHIP, 1/8W 1M OHM J
R825	76011104	CHIP, 1/20W 100K OHM J
R826	76011473	CHIP, 1/20W 47K OHM J
R827	76383473	OXIDE METAL FILM, 2W 47K OHM J
R828	76011104	CHIP, 1/20W 100K OHM J
R829	76011822	CHIP, 1/20W 8.2K OHM J
R830	76011822	CHIP, 1/20W 8.2K OHM J
R840	76552470	OXIDE METAL FILM, 1/2W 47 OHM J
R841	76011103	CHIP, 1/20W 10K OHM J
R843	76011333	CHIP, 1/20W 33K OHM J
R844	76011103	CHIP, 1/20W 10K OHM J
R845	76011332	CHIP, 1/20W 3.3K OHM J
R846	76011103	CHIP, 1/20W 10K OHM J
R847	76011153	CHIP, 1/2OW 15K OHM J
R848	76011332	CHIP, 1/20W 3.3K OHM J
R849	76011103	CHIP, 1/20W 10K OHM J
R850	76011472	CHIP, 1/20W 4.7K OHM J
R851	76011333	CHIP, 1/20W 33K OHM J
R852	76011102	CHIP, 1/20W 1K OHM J
R871	76998332	CHIP, 1/16W 3.3K OHM
R872	76998103	CHIP, 1/16W 10K OHM
R873	76011100	CHIP, 1/20W 10 OHM J
R874	76011102	CHIP, 1/20W 1K OHM J
R875	76011471	CHIP, 1/20W 470 OHM J
R876	76011102	CHIP, 1/20W 1K OHM J
R877	76011471	CHIP, 1/20W 470 OHM J
R880	76552102	OXIDE METAL FILM, 1/2W 1K OHM J
⚠ R899	76005014	METAL FILM, 1W 8.2M OHM J
R8910	76998563	CHIP, 1/16W 56K OHM
R8911	76998562	CHIP, 1/16W 5.6K OHM
R8912	76998102	CHIP, 1/16W 1K OHM
R8921	76011123	CHIP, 1/20W 12K OHM J
R8922	76011182	CHIP, 1/20W 1.8K OHM J
R8923	76011472	CHIP, 1/20W 4.7K OHM J
R8924	76011103	CHIP, 1/20W 10K OHM J
R8931	76011123	CHIP, 1/20W 12K OHM J
R8932	76011182	CHIP, 1/20W 1.8K OHM J
R8933	76011472	CHIP, 1/20W 4.7K OHM J
R8934	76011103	CHIP, 1/20W 10K OHM J
R8950	76011821	CHIP, 1/20W 820 OHM J
R8951	76011473	CHIP, 1/20W 47K OHM J
R8952	76011102	CHIP, 1/20W 1K OHM J
R8953	76011333	CHIP, 1/20W 33K OHM J
R8954	76011333	CHIP, 1/20W 33K OHM J
R8955	76011472	CHIP, 1/20W 4.7K OHM J
R8956	76011681	CHIP, 1/20W 680 OHM J
R8960	76011334	CHIP, 1/20W 330K OHM J
R8961	76011223	CHIP, 1/20W 22K OHM J
R8962	76011223	CHIP, 1/20W 22K OHM J
R8963	76011102	CHIP, 1/20W 1K OHM J
R8964	76011103	CHIP, 1/20W 10K OHM J
RA71	76011103	CHIP, 1/20W 10K OHM J
RA72	76011223	CHIP, 1/20W 22K OHM J
RA73	76011683	CHIP, 1/20W 68K OHM J
RA75	76011103	CHIP, 1/20W 10K OHM J
RA76	76011223	CHIP, 1/20W 22K OHM J
RB15	76366471	CARBON FILM, 1/6W 470 OHM J

Location No.	Parts No.	Description
RB19	76366470	CARBON FILM, 1/6W 47 OHM J
RB51	76366224	CARBON FILM, 1/6W 220K OHM J
RB52	76366123	CARBON FILM, 1/6W 12K OHM J
RB53	76366123	CARBON FILM, 1/6W 12K OHM J
RB54	76366123	CARBON FILM, 1/6W 12K OHM J
RB55	76366224	CARBON FILM, 1/6W 220K OHM J
RB56	76366151	CARBON FILM, 1/6W 150 OHM J
RB57	76366103	CARBON FILM, 1/6W 10K OHM J
RB58	76366103	CARBON FILM, 1/6W 10K OHM J
RB59	76366122	CARBON FILM, 1/6W 1.2K OHM J
RB60	76366224	CARBON FILM, 1/6W 220K OHM J
RB61	76366100	CARBON FILM, 1/6W 10 OHM J
RB62	76366272	CARBON FILM, 1/6W 2.7K OHM J
RB63	76366271	CARBON FILM, 1/6W 270 OHM J
RB67	76366221	CARBON FILM, 1/6W 220 OHM J
RB69	76366272	CARBON FILM, 1/6W 2.7K OHM J
RB70	76366331	CARBON FILM, 1/6W 330 OHM J
RB81	76011473	CHIP, 1/20W 47K OHM J @U104
#1	76011681	CHIP, 1/20W 680 OHM J @UA07
#2	76011331	CHIP, 1/20W 330 OHM J @UA07
#3	76011681	CHIP, 1/20W 680 OHM J @UA07
RB82 #1	76011152	CHIP, 1/20W 1.5K OHM J
#2	76011391	CHIP, 1/20W 390 OHM J
#3	76011152	CHIP, 1/20W 1.5K OHM J
RB83	76011102	CHIP, 1/20W 1K OHM J
RB84	76011473	CHIP, 1/20W 47K OHM J
RB92	76011473	CHIP, 1/20W 47K OHM J
RB93	76011102	CHIP, 1/20W 1K OHM J
RB502	76011332	CHIP, 1/20W 3.3K OHM J
RB503	76011332	CHIP, 1/20W 3.3K OHM J
RB504	76366104	CARBON FILM, 1/6W 100K OHM J
RB505	76366101	CARBON FILM, 1/6W 100 OHM J
RB506	76366390	CARBON FILM, 1/6W 39 OHM J
RB516	76011472	CHIP, 1/20W 4.7K OHM J
RB517	76011472	CHIP, 1/20W 4.7K OHM J
RB518	76011101	CHIP, 1/20W 100 OHM J
RB519	76011472	CHIP, 1/20W 4.7K OHM J
RB520	76011472	CHIP, 1/20W 4.7K OHM J
RB521	76011472	CHIP, 1/20W 4.7K OHM J
RB522	76011472	CHIP, 1/20W 4.7K OHM J
RB523	76011472	CHIP, 1/20W 4.7K OHM J
RB524	76011472	CHIP, 1/20W 4.7K OHM J
RB525	76011102	CHIP, 1/20W 1K OHM J
RB526	76011103	CHIP, 1/20W 10K OHM J
RB527	76011103	CHIP, 1/20W 10K OHM J
RB528	76011472	CHIP, 1/20W 4.7K OHM J
RB529	76011472	CHIP, 1/20W 4.7K OHM J
RB554	76011101	CHIP, 1/20W 100 OHM J
RB555	76011103	CHIP, 1/20W 10K OHM J
RB556	76011101	CHIP, 1/20W 100 OHM J
RB557	76011103	CHIP, 1/20W 10K OHM J
RB558	76366223	CARBON FILM, 1/6W 22K OHM J
RB559	76366223	CARBON FILM, 1/6W 22K OHM J
RB560	76011101	CHIP, 1/20W 100 OHM J
RB561	76011472	CHIP, 1/20W 4.7K OHM J
RB562	76366104	CARBON FILM, 1/6W 100K OHM J
RB563	76366390	CARBON FILM, 1/6W 39 OHM J
RB565	76366101	CARBON FILM, 1/6W 100 OHM J
RB566	76011102	CHIP, 1/20W 1K OHM J
RB567	76366223	CARBON FILM, 1/6W 22K OHM J
RB576	76011153	CHIP, 1/2OW 15K OHM J
RC01	76011101	CHIP, 1/20W 100 OHM J @U104
	76011223	CHIP, 1/20W 22K OHM J @UC01
RC02	76011101	CHIP, 1/20W 100 OHM J @U104
	76011220	CHIP, 1/20W 22 OHM J @UC01
RC03	76011101	CHIP, 1/20W 100 OHM J @U104
	76011220	CHIP, 1/20W 22 OHM J @UC01
RC04	76011101	CHIP, 1/20W 100 OHM J @U104
	76011220	CHIP, 1/20W 22 OHM J @UC01
RC05	76011101	CHIP, 1/20W 100 OHM J @U104
	76011220	CHIP, 1/20W 22 OHM J @UC01
RC06	76011101	CHIP, 1/20W 100 OHM J @U104
	76011220	CHIP, 1/20W 22 OHM J @UC01
RC07	76011101	CHIP, 1/20W 100 OHM J @U104
	76011220	CHIP, 1/20W 22 OHM J @UC01
RC08	76011101	CHIP, 1/20W 100 OHM J @U104

Location No.	Parts No.	Description
	76011220	CHIP, 1/20W 22 OHM J @UC01
RC09	76011101	CHIP, 1/20W 100 OHM J @U104
	76011270	CHIP, 1/20W 27 OHM J @UC01
RC10	76011101	CHIP, 1/20W 100 OHM J @U104
	76011270	CHIP, 1/20W 27 OHM J @UC01
RC11	76011101	CHIP, 1/20W 100 OHM J @U104
	76011334	CHIP, 1/20W 330K OHM J @UC01
RC12	76011101	CHIP, 1/20W 100 OHM J @U104
	76011103	CHIP, 1/20W 10K OHM J @UC01
RC13	76011101	CHIP, 1/20W 100 OHM J @U104
	76000824	CHIP JUMPER, 2125TYPE @UC01
RC14	76011101	CHIP, 1/20W 100 OHM J @U104
	76000824	CHIP JUMPER, 2125TYPE @UC01
RC15	76000824	CHIP JUMPER, 2125TYPE
RC16	76011103	CHIP, 1/20W 10K OHM J
RC17	76000824	CHIP JUMPER, 2125TYPE
RC18	76000824	CHIP JUMPER, 2125TYPE
RC19	76000824	CHIP JUMPER, 2125TYPE
RC20	76000824	CHIP JUMPER, 2125TYPE
RC21	76011103	CHIP, 1/20W 10K OHM J
RC22	76011103	CHIP, 1/20W 10K OHM J
RC23	76011103	CHIP, 1/20W 10K OHM J
RC24	76011103	CHIP, 1/20W 10K OHM J
RC25	76011103	CHIP, 1/20W 10K OHM J
RC26	76011103	CHIP, 1/20W 10K OHM J
RC27	76011103	CHIP, 1/20W 10K OHM J
RC28	76011103	CHIP, 1/20W 10K OHM J
RC32	76011331	CHIP, 1/20W 330 OHM J
RC33	76011103	CHIP, 1/20W 10K OHM J
RC34	76011331	CHIP, 1/20W 330 OHM J
RC35	76011103	CHIP, 1/20W 10K OHM J
RC36	76011331	CHIP, 1/20W 330 OHM J
RC37	76011103	CHIP, 1/20W 10K OHM J
RC38	76011331	CHIP, 1/20W 330 OHM J
RC39	76011103	CHIP, 1/20W 10K OHM J
RC40	76011102	CHIP, 1/20W 1K OHM J
RC41	76011105	CHIP, 1/20W 1M OHM J
RC49	76011103	CHIP, 1/20W 10K OHM J
RC50	76011123	CHIP, 1/20W 12K OHM J
RC51	76011103	CHIP, 1/20W 10K OHM J
RC52	76011103	CHIP, 1/20W 10K OHM J
RC53	76011103	CHIP, 1/20W 10K OHM J
RC54	76011220	CHIP, 1/20W 22 OHM J
RC55	76011103	CHIP, 1/20W 10K OHM J
RC61	76011564	CHIP, 1/20W 560K OHM J
RC62	76011103	CHIP, 1/20W 10K OHM J
RE08	76554683	OXIDE RES 2W 68K J
RE14	76011472	CHIP, 1/20W 4.7K OHM J
RE15	76011102	CHIP, 1/20W 1K OHM J
RE16	76382221	OXIDE METAL FILM, 1W 220 OHM J
RE17	76011103	CHIP, 1/20W 10K OHM J
RE19	76011183	CHIP, 1/20W 18K OHM J
RE20	76011333	CHIP, 1/20W 33K OHM J
RE21	76011103	CHIP, 1/20W 10K OHM J
RE22	76011103	CHIP, 1/20W 10K OHM J
RE23	76011473	CHIP, 1/20W 47K OHM J
RE24	76011103	CHIP, 1/20W 10K OHM J
RE25	76011333	CHIP, 1/20W 33K OHM J
RE26	76011103	CHIP, 1/20W 10K OHM J
RE27	76011103	CHIP, 1/20W 10K OHM J
RE28	76011473	CHIP, 1/20W 47K OHM J
RE29	76011103	CHIP, 1/20W 10K OHM J
RE30	76998102	CHIP, 1/16W 1K OHM
RE31	76998152	CHIP, 1/16W 1.5K OHM D
RE32	76998181	CHIP, 1/16W 180 OHM
RE33	76011102	CHIP, 1/20W 1K OHM J
RE34	76011473	CHIP, 1/20W 47K OHM J
RE35	76011103	CHIP, 1/20W 10K OHM J
RE36	76011103	CHIP, 1/20W 10K OHM J
RE37	76011333	CHIP, 1/20W 33K OHM J
RE38	76998102	CHIP, 1/16W 1K OHM
RE39	76998152	CHIP, 1/16W 1.5K OHM D
RE40	76998273	CHIP, 1/16W 27K OHM
RE41	76998823	CHIP, 1/16W 82K OHM
RE42	76011103	CHIP, 1/20W 10K OHM J
RE43	76011223	CHIP, 1/20W 22K OHM J

Location No.	Parts No.	Description
RE44	76011103	CHIP, 1/20W 10K OHM J
RE45	76011223	CHIP, 1/20W 22K OHM J
RE47	76998333	CHIP, 1/16W 33K OHM
RE48	76998104	CHIP, 1/16W 100K OHM D
RE49	76998102	CHIP, 1/16W 1K OHM
RE50	76998181	CHIP, 1/16W 180 OHM
RE51	76011102	CHIP, 1/20W 1K OHM J
RE52	76011333	CHIP, 1/20W 33K OHM J
RE53	76011103	CHIP, 1/20W 10K OHM J
RE54	76011103	CHIP, 1/20W 10K OHM J
RE55	76011333	CHIP, 1/20W 33K OHM J
RE56	76998153	CHIP, 1/16W 15K OHM
RE57	76998823	CHIP, 1/16W 82K OHM
RE58	76998123	CHIP, 1/16W 12K OHM
RE59	76011332	CHIP, 1/20W 3.3K OHM J
RE61	76382473	OXIDE METAL FILM, 1W 47K OHM J
RE62	76322688	OXIDE METAL FILM, 1W 0.68 OHM J
RE63	76322688	OXIDE METAL FILM, 1W 0.68 OHM J
RE64	76381221	OXIDE METAL FILM, 1/2W 220 OHM J
RE65	76366102	CARBON FILM, 1/6W 1K OHM J
RE66	76366102	CARBON FILM, 1/6W 1K OHM J
RE71	76310829	OXIDE METAL FILM, 1/2W 8.2 OHM J
RE72	76552222	OXIDE METAL FILM, 1/2W 2.2K OHM J
RE73	76366102	CARBON FILM, 1/6W 1K OHM J
RE81	76998821	CHIP, 1/16W 820 OHM
RE82	76998103	CHIP, 1/16W 10K OHM
RE83	76998682	CHIP, 1/16W 6.8K OHM D
RE84	76011471	CHIP, 1/20W 470 OHM J
RE85	76011222	CHIP, 1/20W 2.2K OHM J
RE86	76011102	CHIP, 1/20W 1K OHM J
RE89	76011223	CHIP, 1/20W 22K OHM J
RE90	76011103	CHIP, 1/20W 10K OHM J
RE91	76011333	CHIP, 1/20W 33K OHM J
RE92	76011104	CHIP, 1/20W 100K OHM J
RE93	76011223	CHIP, 1/20W 22K OHM J
RE94	76011103	CHIP, 1/20W 10K OHM J
RE95	76382222	OXIDE METAL FILM, 1W 2.2K OHM J
RE96	76011102	CHIP, 1/20W 1K OHM J
RE97	76382101	OXIDE METAL FILM, 1W 100 OHM J
RE98	76011103	CHIP, 1/20W 10K OHM J
RE99	76011472	CHIP, 1/20W 4.7K OHM J
RF07	76011122	CHIP, 1/20W 1.2K OHM J
RF08	76011153	CHIP, 1/2OW 15K OHM J
RF09	76011103	CHIP, 1/20W 10K OHM J
RF10	76998153	CHIP, 1/16W 15K OHM
RF11	76998104	CHIP, 1/16W 100K OHM D
RF12	76998473	CHIP, 1/16W 47K OHM
RF13	76011152	CHIP, 1/20W 1.5K OHM J
RF14	76011474	CHIP, 1/20W 470K OHM J
RF15	76011682	CHIP, 1/20W 6.8K OHM J
RF18	76998103	CHIP, 1/16W 10K OHM
RF19	76998682	CHIP, 1/16W 6.8K OHM D
RF20	76998822	CHIP, 1/16W 8.2K OHM
RF21	76998683	CHIP, 1/16W 68K OHM D
RF22	76998473	CHIP, 1/16W 47K OHM
RF23	76011474	CHIP, 1/20W 470K OHM J
RF24	76998103	CHIP, 1/16W 10K OHM
RF25	76998153	CHIP, 1/16W 15K OHM
RF26	76011682	CHIP, 1/20W 6.8K OHM J
RF27	76011332	CHIP, 1/20W 3.3K OHM J
RF29	76011332	CHIP, 1/20W 3.3K OHM J
RF30	76998272	CHIP, 1/16W 2.7K OHM
RF31	76998221	CHIP, 1/16W 220 OHM
RF32	76998182	CHIP, 1/16W 1.8K OHM
RF33	76011220	CHIP, 1/20W 22 OHM J
RF34	76011220	CHIP, 1/20W 22 OHM J
RF35	76011684	CHIP, 1/20W 680K OHM J
RF90	76382330	OXIDE METAL FILM, 1W 33 OHM J
RS01	76011562	CHIP, 1/20W 5.6K OHM J
RS02	76011562	CHIP, 1/20W 5.6K OHM J
RS03	76011562	CHIP, 1/20W 5.6K OHM J
RS04	76011562	CHIP, 1/20W 5.6K OHM J
RS05	76011562	CHIP, 1/20W 5.6K OHM J
RS06	76011562	CHIP, 1/20W 5.6K OHM J
RS07	76011562	CHIP, 1/20W 5.6K OHM J
RS08	76011562	CHIP, 1/20W 5.6K OHM J

Location No.	Parts No.	Description
RS09	76011562	CHIP, 1/20W 5.6K OHM J
RS10	76011562	CHIP, 1/20W 5.6K OHM J
RS11	76011562	CHIP, 1/20W 5.6K OHM J
RS12	76011562	CHIP, 1/20W 5.6K OHM J
RS13	76011562	CHIP, 1/20W 5.6K OHM J
RS14	76011562	CHIP, 1/20W 5.6K OHM J
RS15	76011562	CHIP, 1/20W 5.6K OHM J
RS16	76011562	CHIP, 1/20W 5.6K OHM J
RS17	76011562	CHIP, 1/20W 5.6K OHM J
RS18	76011562	CHIP, 1/20W 5.6K OHM J
RS19	76011562	CHIP, 1/20W 5.6K OHM J
RS20	76011562	CHIP, 1/20W 5.6K OHM J
RS21	76011562	CHIP, 1/20W 5.6K OHM J
RS22	76011562	CHIP, 1/20W 5.6K OHM J
RS23	76011101	CHIP, 1/20W 100 OHM J
RS24	76011101	CHIP, 1/20W 100 OHM J
RS25	76011101	CHIP, 1/20W 100 OHM J
RS26	76011101	CHIP, 1/20W 100 OHM J
RS27	76011101	CHIP, 1/20W 100 OHM J
RS28	76011101	CHIP, 1/20W 100 OHM J
RS29	76011682	CHIP, 1/20W 6.8K OHM J
RS30	76011182	CHIP, 1/20W 1.8K OHM J
RS31	76011100	CHIP, 1/20W 10 OHM J
RS32	76011221	CHIP, 1/20W 220 OHM J
RS33	76011222	CHIP, 1/20W 2.2K OHM J
RS34	76011221	CHIP, 1/20W 220 OHM J
RS35	76011222	CHIP, 1/20W 2.2K OHM J
RS37	76011101	CHIP, 1/20W 100 OHM J
RS38	76011101	CHIP, 1/20W 100 OHM J
RS41	76011821	CHIP, 1/20W 820 OHM J
RS42	76011821	CHIP, 1/20W 820 OHM J
RS43	76011223	CHIP, 1/20W 22K OHM J
RS44	76011223	CHIP, 1/20W 22K OHM J
RS45	76011104	CHIP, 1/20W 100K OHM J
RS46	76011104	CHIP, 1/20W 100K OHM J
RS47	76011222	CHIP, 1/20W 2.2K OHM J
RV10	76011222	CHIP, 1/20W 2.2K OHM J
RV11	76011222	CHIP, 1/20W 2.2K OHM J
RV12	76011222	CHIP, 1/20W 2.2K OHM J
RV20	76366750	CARBON FILM, 1/6W 75 OHM J
RV21	76366750	CARBON FILM, 1/6W 75 OHM J
RV22	76366750	CARBON FILM, 1/6W 75 OHM J
RV23	76366101	CARBON FILM, 1/6W 100 OHM J
RV33	76011750	CHIP, 1/20W 75 OHM J
RV34	76011750	CHIP, 1/20W 75 OHM J
RV35	76011750	CHIP, 1/20W 75 OHM J
RV36	76011750	CHIP, 1/20W 75 OHM J
RV37	76011750	CHIP, 1/20W 75 OHM J
RV40	76011750	CHIP, 1/20W 75 OHM J
RV41	76011391	CHIP, 1/20W 390 OHM J
RV42	76011331	CHIP, 1/20W 330 OHM J
RV44	76011332	CHIP, 1/20W 3.3K OHM J
RV45	76000445	CHIP JUMPER, 1608TYPE
RV46	76011100	CHIP, 1/20W 10 OHM J
RV47	76011100	CHIP, 1/20W 10 OHM J
RV51	76011750	CHIP, 1/20W 75 OHM J
RV52	76011750	CHIP, 1/20W 75 OHM J
RV53	76011750	CHIP, 1/20W 75 OHM J
RV54	76011750	CHIP, 1/20W 75 OHM J
RV55	76011750	CHIP, 1/20W 75 OHM J
RV56	76011750	CHIP, 1/20W 75 OHM J
RV61	76011101	CHIP, 1/20W 100 OHM J
RV62	76011101	CHIP, 1/20W 100 OHM J
RV63	76011101	CHIP, 1/20W 100 OHM J
RV64	76011101	CHIP, 1/20W 100 OHM J
RV65	76011101	CHIP, 1/20W 100 OHM J
RV66	76011750	CHIP, 1/20W 75 OHM J
RV160	76011101	CHIP, 1/20W 100 OHM J
RV161	76011101	CHIP, 1/20W 100 OHM J
RV162	76011101	CHIP, 1/20W 100 OHM J
RV163	76011101	CHIP, 1/20W 100 OHM J
RV164	76011101	CHIP, 1/20W 100 OHM J
RV165	76011101	CHIP, 1/20W 100 OHM J
RV166	76011681	CHIP, 1/20W 680 OHM J
RV167	76011681	CHIP, 1/20W 680 OHM J
RV168	76011681	CHIP, 1/20W 680 OHM J

Location No.	Parts No.	Description
RV169	76011101	CHIP, 1/20W 100 OHM J
RV200	76011101	CHIP, 1/20W 100 OHM J
RV201	76011101	CHIP, 1/20W 100 OHM J
RV202	76011102	CHIP, 1/20W 1K OHM J
GR02	76000445	CHIP JUMPER, 1608TYPE
GR003	76000576	CHIP JUMPER, 3216TYPE
GR03	76000445	CHIP JUMPER, 1608TYPE
GR004	76000576	CHIP JUMPER, 3216TYPE
GR04	76000445	CHIP JUMPER, 1608TYPE
GR10	76000445	CHIP JUMPER, 1608TYPE
GR11	76000445	CHIP JUMPER, 1608TYPE
GR12	76000445	CHIP JUMPER, 1608TYPE
GR25	76000445	CHIP JUMPER, 1608TYPE
GR26	76000445	CHIP JUMPER, 1608TYPE
GR27	76000445	CHIP JUMPER, 1608TYPE
GR28	76000445	CHIP JUMPER, 1608TYPE
GR30	76000445	CHIP JUMPER, 1608TYPE
GR112	76000445	CHIP JUMPER, 1608TYPE
GR113	76000445	CHIP JUMPER, 1608TYPE
GR120	76000445	CHIP JUMPER, 1608TYPE
GR121	76000445	CHIP JUMPER, 1608TYPE
GR122	76000445	CHIP JUMPER, 1608TYPE
GR123	76000445	CHIP JUMPER, 1608TYPE
GR603	76000445	CHIP JUMPER, 1608TYPE
GR604	76000445	CHIP JUMPER, 1608TYPE
GR612	76000445	CHIP JUMPER, 1608TYPE
GR613	76000445	CHIP JUMPER, 1608TYPE
GRS02	76000445	CHIP JUMPER, 1608TYPE
ZC01	76019479	CHIP BLOCK, 1/32W 22 OHM J, P-8
ZC02	76019479	CHIP BLOCK, 1/32W 22 OHM J, P-8
ZC03	76019479	CHIP BLOCK, 1/32W 22 OHM J, P-8
ZC04	76019479	CHIP BLOCK, 1/32W 22 OHM J, P-8
ZC05	76019479	CHIP BLOCK, 1/32W 22 OHM J, P-8
ZC06	76019479	CHIP BLOCK, 1/32W 22 OHM J, P-8
ZC07	76019479	CHIP BLOCK, 1/32W 22 OHM J, P-8
ZC08	76019479	CHIP BLOCK, 1/32W 22 OHM J, P-8
ZC09	76019479	CHIP BLOCK, 1/32W 22 OHM J, P-8
ZC10	76019479	CHIP BLOCK, 1/32W 22 OHM J, P-8
ZC11	76019479	CHIP BLOCK, 1/32W 22 OHM J, P-8
ZC12	76019479	CHIP BLOCK, 1/32W 22 OHM J, P-8
ZC13	76019479	CHIP BLOCK, 1/32W 22 OHM J, P-8
ZC16	76019479	CHIP BLOCK, 1/32W 22 OHM J, P-8
ZC18	76019479	CHIP BLOCK, 1/32W 22 OHM J, P-8
ZC19	76019404	CHIP BLOCK, 1/16W 10K OHM J, P-8
ZC21	76019404	CHIP BLOCK, 1/16W 10K OHM J, P-8
ZC22	76019404	CHIP BLOCK, 1/16W 10K OHM J, P-8
ZC23	76019404	CHIP BLOCK, 1/16W 10K OHM J, P-8
COILS & TRANSFORMERS		
L001	23103885	INDUCTOR, CHIP BEAD 3A 22OHM
L002	23103887	INDUCTOR, CHIP BEAD, TEM2130AM
L003	23103887	INDUCTOR, CHIP BEAD, TEM2130AM
L101	23248398	COIL, CHOKE, TLN3278D
L102	23103828	INDUCTOR, BEAD, TEM2121M
L103	23103828	INDUCTOR, BEAD, TEM2121M
L151	23103828	INDUCTOR, BEAD, TEM2121M
L152	23103828	INDUCTOR, BEAD, TEM2121M
L803	23103302	FERRITE CHOKE, TEM2011AH
L804	23103302	FERRITE CHOKE, TEM2011AH
L805	23103302	FERRITE CHOKE, TEM2011AH
L820	23103307	FERRITE CHOKE, TEM2014AA
L821	23103307	FERRITE CHOKE, TEM2014AA
L855	23103302	FERRITE CHOKE, TEM2011AH
L856	23103302	FERRITE CHOKE, TEM2011AH
L857	23103302	FERRITE CHOKE, TEM2011AH
L858	23103302	FERRITE CHOKE, TEM2011AH
L859	23103302	FERRITE CHOKE, TEM2011AH
L860	23103302	FERRITE CHOKE, TEM2011AH
L861	23248442	COIL, CHOKE, TLN3515AH
L862	23248442	COIL, CHOKE, TLN3515AH
L864	23248442	COIL, CHOKE, TLN3515AH
L8920	23289996	COIL, PEAKING, TRF4220AF
L8921	23289996	COIL, PEAKING, TRF4220AF
L8930	23289996	COIL, PEAKING, TRF4220AF
L8931	23289996	COIL, PEAKING, TRF4220AF
L8960	23103828	INDUCTOR, BEAD, TEM2121M

Location No.	Parts No.	Description
L8961	23103828	INDUCTOR, BEAD, TEM2121M
LB19	23103828	INDUCTOR, BEAD, TEM2121M
LB51	23289972	COIL, PEAKING, TRF4100AC
LC02	23103887	INDUCTOR, CHIP BEAD, TEM2130AM
LC03	23103271	FILTER, EMI 2012 201OHM 0.35A TEM2033AD
LC04	23103271	FILTER, EMI 2012 201OHM 0.35A TEM2033AD
LC05	23103887	INDUCTOR, CHIP BEAD, TEM2130AM
LC06	23103887	INDUCTOR, CHIP BEAD, TEM2130AM
LE08	23103302	FERRITE CHOKE, TEM2011AH
LE30	23289979	COIL, PEAKING, TRF4100AZ
LE31	23246919	COIL, CHOKE 13X8H 33MMH M TLN3586AH
LE32	23246934	COIL, CHOKE 4.5X3.5H 1.0MMHM TLN3601AH
LE33	23103888	INDUCTOR, CHIP BEAD, TEM2131AM
LE34	23289979	COIL, PEAKING, TRF4100AZ
LE35	23246919	COIL, CHOKE 13X8H 33MMH M TLN3586AH
LE36	23246934	COIL, CHOKE 4.5X3.5H 1.0MMHM TLN3601AH
LE37	23103888	INDUCTOR, CHIP BEAD, TEM2131AM
LE38	23103887	INDUCTOR, CHIP BEAD, TEM2130AM
LE40	23103887	INDUCTOR, CHIP BEAD, TEM2130AM
LE59	23103887	INDUCTOR, CHIP BEAD, TEM2130AM
LE61	23103302	FERRITE CHOKE, TEM2011AH
LE64	23103302	FERRITE CHOKE, TEM2011AH
LE81	23103302	FERRITE CHOKE, TEM2011AH
LE82	23103302	FERRITE CHOKE, TEM2011AH
LE83	23103302	FERRITE CHOKE, TEM2011AH
LE84	23103302	FERRITE CHOKE, TEM2011AH
LE85	23248432	COIL, CHOKE, TLN3499AH
LE86	23248432	COIL, CHOKE, TLN3499AH
LE87	23248432	COIL, CHOKE, TLN3499AH
LE88	23248445	COIL, CHOKE, TLN3441AH
LE91	23103265	FILTER, CHIP BEAD INDUCTOR TEM2160AM
LE92	23103888	INDUCTOR, CHIP BEAD, TEM2131AM
LE93	23103888	INDUCTOR, CHIP BEAD, TEM2131AM
LE94	23103888	INDUCTOR, CHIP BEAD, TEM2131AM
LE95	23103888	INDUCTOR, CHIP BEAD, TEM2131AM
LF10	23103885	INDUCTOR, CHIP BEAD 3A 22OHM
LF11	23246911	COIL, CHOKE 13X8H 5.6MMH N TLN3578AH
LF13	23103885	INDUCTOR, CHIP BEAD 3A 22OHM
LF14	23248489	COIL, CHOKE COIL 1.5MMH 8A TLN3639AH
LF21	23246911	COIL, CHOKE 13X8H 5.6MMH N TLN3578AH
LF23	23103885	INDUCTOR, CHIP BEAD 3A 22OHM
LF24	23248489	COIL, CHOKE COIL 1.5MMH 8A TLN3639AH
LF30	23103887	INDUCTOR, CHIP BEAD, TEM2130AM
LF31	23246895	COIL, CHOKE 13X4.6H 33MMH M TLN3561AH
LF32	23246934	COIL, CHOKE 4.5X3.5H 1.0MMHM TLN3601AH
LF33	23103888	INDUCTOR, CHIP BEAD, TEM2131AM
LF90	23289983	COIL, PEAKING, TRF4101AZ
LF91	23289983	COIL, PEAKING, TRF4101AZ
LV02	23103314	COIL, FILTER, TEM2028AH
LV03	23103314	COIL, FILTER, TEM2028AH
LV13	23289022	COIL, PEAKING, TRF4100AT
LV17	23289022	COIL, PEAKING, TRF4100AT
LV20	23221156	COIL, PEAKING, TRF4560AJ
LV41	23289024	COIL, PEAKING, TRF4220AT
⚠ T801	23211839	COIL, LINE FILTER, TRF3209AH
⚠ T802	23211836	COIL, LINE FILTER, TRF3197AH
⚠ T862	23217780	TRANSFORMER, CONVERTER TPW3570AS
⚠ TE01	23211905	COIL, LINE FILTER 26X31H 11MH TRF3228AH
TE62	23217781	TRANSFORMER, CONVERTER TPW3571AS
GR605	23103887	INDUCTOR, CHIP BEAD, TEM2130AM
SEMICONDUCTORS		
Q101	23205506	TRANSISTOR, 2SC4081 Q
Q161	23205506	TRANSISTOR, 2SC4081 Q
Q601	23085839	IC, TV SOUND OUT CPP 12PIN TA8216HQ(5)
Q612	23205346	TRANSISTOR, KTA2014Y/P
Q613	23205506	TRANSISTOR, 2SC4081 Q
Q661	23205424	TRANSISTOR, KTC2875B/P
Q662	23205424	TRANSISTOR, KTC2875B/P
Q663	23085575	IC, OP AMP, BA4558
Q664	23205325	TRANSISTOR, RN2404(F)
Q681	23205424	TRANSISTOR, KTC2875B/P
Q682	23205424	TRANSISTOR, KTC2875B/P
Q801	23135080	IC, STRZ4267
Q815	23205347	TRANSISTOR, KTC4075Y/P
Q846	23205347	TRANSISTOR, KTC4075Y/P
Q847	23205347	TRANSISTOR, KTC4075Y/P
Q848	23205347	TRANSISTOR, KTC4075Y/P
Q849	23205346	TRANSISTOR, KTA2014Y/P
Q850	23205347	TRANSISTOR, KTC4075Y/P
Q851	23205346	TRANSISTOR, KTA2014Y/P
⚠ Q862	23000823	IC, PHOTO COUPLER, TLP421F(GR)
⚠ Q866	23000823	IC, PHOTO COUPLER, TLP421F(GR)
Q870	23085389	IC, NJM431L
Q891	23085821	IC, ADJ REG. VO=1.5V-16.0V BA7810T-V5
Q892	23009998	IC, BA00JC5WT-V5
Q893	23009998	IC, BA00JC5WT-V5
Q894	23085869	IC, OPE AMP, TA75358PG(5)
Q8950	23205347	TRANSISTOR, KTC4075Y/P
Q8951	23205347	TRANSISTOR, KTC4075Y/P
Q8952	23205346	TRANSISTOR, KTA2014Y/P
Q8960	23205347	TRANSISTOR, KTC4075Y/P
Q8961	23205347	TRANSISTOR, KTC4075Y/P
QB51	23085527	IC, OPE AMP, M5218AP
QB52	23205499	TRANSISTOR, KTC3198 Y/P
QB53	23205497	TRANSISTOR, KTA1266 Y/P
QB80	23085600	IC, PST9129
QB81	23205446	TRANSISTOR, 2SC2412K, Q T146
QB84	23205446	TRANSISTOR, 2SC2412K, Q T146
QB501	23085951	IC, BLASTER IC S3C80F9BKZ-SO77
QB502	23205307	TRANSISTOR, 2SA562TM-Y(F)
QB504	23205506	TRANSISTOR, 2SC4081 Q
QB505	23205506	TRANSISTOR, 2SC4081 Q
QB508	23205307	TRANSISTOR, 2SA562TM-Y(F)
QB509	23205337	TRANSISTOR, 2SC2878-A(TEM)
QB510	23205317	TRANSISTOR, RN1204(F)
QB511	23205317	TRANSISTOR, RN1204(F)
QB512	23205337	TRANSISTOR, 2SC2878-A(TEM)
QB513	23205317	TRANSISTOR, RN1204(F)
QB514	23085507	IC, TC4S66F(F)
QB515	23085507	IC, TC4S66F(F)
QB516	23009976	IC, BH33FB1WG-TR
QB517	23205317	TRANSISTOR, RN1204(F)
QC01	23085879	IC, USB2224-NU-05
QC02	23085121	IC, TC7SH04FU(TE85L,F)
QC03	23205578	TRANSISTOR, RTQ035P02
QC04	23205578	TRANSISTOR, RTQ035P02
QC05	23205578	TRANSISTOR, RTQ035P02
QC06	23205578	TRANSISTOR, RTQ035P02
QC07	23085774	IC, REG PQ033EZ01ZPH
QE01	23135089	IC, HYBRID 650V STR-W6756
QE21	23205346	TRANSISTOR, KTA2014Y/P
QE22	23205347	TRANSISTOR, KTC4075Y/P
QE30	23085454	IC, PQ1CY1032Z
QE31	23205347	TRANSISTOR, KTC4075Y/P
QE32	23205347	TRANSISTOR, KTC4075Y/P
QE33	23085454	IC, PQ1CY1032Z
QE34	23205347	TRANSISTOR, KTC4075Y/P
QE35	23205347	TRANSISTOR, KTC4075Y/P
QE40	23000903	IC, REGULATOR ADJ TO252-5 BA00BC0WFP-E2
QE50	23000903	IC, REGULATOR ADJ TO252-5 BA00BC0WFP-E2
QE51	23205347	TRANSISTOR, KTC4075Y/P
QE52	23205347	TRANSISTOR, KTC4075Y/P
QE53	23000903	IC, REGULATOR ADJ TO252-5 BA00BC0WFP-E2
QE54	23205347	TRANSISTOR, KTC4075Y/P
QE55	23205347	TRANSISTOR, KTC4075Y/P
QE59	23085028	IC, BA90BC0FP-E2
⚠ QE62	23000823	IC, PHOTO COUPLER, TLP421F(GR)
QE81	23085389	IC, NJM431L
QE93	23205301	TRANSISTOR, 2SA1887(FA,F)
QE94	23205446	TRANSISTOR, 2SC2412K, Q T146
QE95	23205446	TRANSISTOR, 2SC2412K, Q T146
QE96	23205301	TRANSISTOR, 2SA1887(FA,F)
QE97	23205446	TRANSISTOR, 2SC2412K, Q T146
QE98	23085415	IC, BD4746G
QE99	23205347	TRANSISTOR, KTC4075Y/P
QF05	23085415	IC, BD4746G
QF10	23085807	IC, HTSSOP B20 CONTROL BD9851EFV-E2
QF12	23205582	TRANSISTOR, FET RSS090P03 RSS090P03TB
QF22	23205582	TRANSISTOR, FET RSS090P03 RSS090P03TB
QF30	23135095	IC, CHOPPER REG PQ1CX12H2ZPQ T
QS01	23009916	IC, MM1631AJBE

Location No.	Parts No.	Description
QS02	23205347	TRANSISTOR, KTC4075Y/P
QS05	23205347	TRANSISTOR, KTC4075Y/P
QS06	23205347	TRANSISTOR, KTC4075Y/P
QS07	23205424	TRANSISTOR, KTC2875B/P
QS08	23205424	TRANSISTOR, KTC2875B/P
QS09	23205325	TRANSISTOR, RN2404(F)
QV12	23085806	IC, 3 IN 1 OUT 75OHM DRIVER MM1228XFBE
QV13	23205346	TRANSISTOR, KTA2014Y/P
QV30	23085352	IC, M52055FP
QV43	23205346	TRANSISTOR, KTA2014Y/P
QV44	23205346	TRANSISTOR, KTA2014Y/P
QV200	23085393	IC, MM1502XN
D601	23357697	DIODE, 1SS133
D602	23357697	DIODE, 1SS133
D603	23357697	DIODE, 1SS133
D604	23357697	DIODE, 1SS133
D611	23357697	DIODE, 1SS133
D612	23357697	DIODE, 1SS133
D613	23357697	DIODE, 1SS133
D614	23357697	DIODE, 1SS133
D615	23357697	DIODE, 1SS133
D616	23357697	DIODE, 1SS133
D617	23357697	DIODE, 1SS133
D628	23357865	DIODE, ZENER, MTZJ12B
D801	23357712	DIODE, D5SB60, 4009 F05
D805	23357850	DIODE, ZENER, MTZJ9.1A
D806	23357893	DIODE, ZENER, MTZJ27C
D809	23357905	DIODE, ZENER, MTZJ36C
D810	23357893	DIODE, ZENER, MTZJ27C
D811	23357511	DIODE, AG01A
D812	23357852	DIODE, ZENER, MTZJ9.1C
D813	23357512	DIODE, AL01Z
D815	23357748	DIODE, ZENER, MA8062-M
D840	23357703	DIODE, 1SS355
D841	23357703	DIODE, 1SS355
D842	23357748	DIODE, ZENER, MA8062-M
D843	23362216	DIODE, CHIP VRM=80V IO=50MA DAN202UT106
D855	23362233	DIODE, VRRM=40V IO=10A YG802C04RF119
D857	23362136	DIODE, YG801C04RF119
D859	23362210	DIODE, SCHOTTKY VRM90V 6A RB095T-90
D870	23357703	DIODE, 1SS355
⚠ D899	76019485	VARISTOR, TNR10V431K
D8950	23362216	DIODE, CHIP VRM=80V IO=50MA DAN202UT106
D8951	23357745	DIODE, ZENER, MA8056-M
D8960	23357506	DIODE, DAP202U
D8961	23357745	DIODE, ZENER, MA8056-M
DB51	23358616	PHOTO DIODE, PIN 900NM HPI-2FER4
DB52	23357697	DIODE, 1SS133
DB54	23357697	DIODE, 1SS133
DB55	23357697	DIODE, 1SS133
DB56	23357697	DIODE, 1SS133
DB81	23358619	LED, LAMP BLUE 21P1XEL SLA580BCT
DB82	23311148	LAMP, LAMP YELLOW SLI-580YT
DB501	23357697	DIODE, 1SS133
DB504	23357697	DIODE, 1SS133
DC01	23362231	DIODE, NNCD6.8MG-T1
DC02	23362231	DIODE, NNCD6.8MG-T1
DC03	23362231	DIODE, NNCD6.8MG-T1
DC04	23362231	DIODE, NNCD6.8MG-T1
DC05	23362194	DIODE, HIGH SPEED SWITCHING 1SS193(TE85L,F)
DE01	23357711	DIODE, D3SB60, 4109 F05
DE08	23357709	DIODE, RU1P
DE19	23357703	DIODE, 1SS355
DE30	23362215	DIODE, SCHOTTKY VRM45V 6A RB095B-40TL
DE31	23357739	DIODE, ZENER, MA8047-M
DE32	23362211	DIODE, SCHOTTKY VRM35V 6A RB095B-30TL
DE33	23357739	DIODE, ZENER, MA8047-M
DE62	23357900	DIODE, ZENER, MTZJ33B
DE63	23357892	DIODE, ZENER, MTZJ27B
DE64	23357366	DIODE, FR105-B5
DE66	23357842	DIODE, ZENER, MTZJ6.8B
DE71	23357697	DIODE, 1SS133
DE72	23357697	DIODE, 1SS133
DE81	23362208	DIODE, SCHOTTKY VRM45V 6A RB095T-40
DE82	23362209	DIODE, SCHOTTKY VRM60V 6A RB095T-60
DE83	23362210	DIODE, SCHOTTKY VRM90V 6A RB095T-90

Location No.	Parts No.	Description
DE84	23357366	DIODE, FR105-B5
DE91	23357874	DIODE, ZENER, MTZJ16B
DE92	23357874	DIODE, ZENER, MTZJ16B
DE98	23357703	DIODE, 1SS355
DE99	23357703	DIODE, 1SS355
DF10	23362211	DIODE, SCHOTTKY VRM35V 6A RB095B-30TL
DF11	23362054	DIODE, RB521S-30
DF12	23362230	DIODE, ZENER VZ=4.7-5.2 PMDS PTZ4.7B TE25
DF20	23362211	DIODE, SCHOTTKY VRM35V 6A RB095B-30TL
DF21	23362054	DIODE, RB521S-30
DF22	23362230	DIODE, ZENER VZ=4.7-5.2 PMDS PTZ4.7B TE25
DF30	23362214	DIODE, SCHOTTKY VRM30 IO3.0 RSX301L-30 TE25
DF31	23357703	DIODE, 1SS355
DF32	23357739	DIODE, ZENER, MA8047-M
DV161	23357854	DIODE, ZENER, MTZJ10B
DV162	23357854	DIODE, ZENER, MTZJ10B
DV163	23357854	DIODE, ZENER, MTZJ10B
DV164	23357854	DIODE, ZENER, MTZJ10B
DV165	23357854	DIODE, ZENER, MTZJ10B
DV166	23357854	DIODE, ZENER, MTZJ10B
KB01	23000852	IC,REMOCON RECEIVER, PIC-37043TE2
MISCELLANEOUS		
A306	23717198	SCREW, THUMB SCREW RETAINER
A512	23717192	SCREW, AV BOARD
A513	23717192	SCREW, AV BOARD
A621	23717192	SCREW, AV BOARD
A622	23717192	SCREW, AV BOARD
B230	23738088	SCREW, BTBW3X12ECO
B231	23738088	SCREW, BTBW3X12ECO
B233	23738088	SCREW, BTBW3X12ECO
B235	23738088	SCREW, BTBW3X12ECO
B237	23845859	HOLDER, WIRE, PVC-C0AT, L=70MM
B244	23738088	SCREW, BTBW3X12ECO
B245	23845859	HOLDER, WIRE, PVC-C0AT, L=70MM
B898	23165495	TERMINAL, EARTH PHI3 MET31-0332
B899	23165495	TERMINAL, EARTH PHI3 MET31-0332
BB01A	23713974	CONNECTOR, BB 100P PLUG 1-5175473-0
BB02A	23713974	CONNECTOR, BB 100P PLUG 1-5175473-0
BB20	23713014	PLUG, B-B 16P 1.5
BB21	23713013	SOCKET, B-B 16P 1.5
BB30	23713014	PLUG, B-B 16P 1.5
BB31	23713013	SOCKET, B-B 16P 1.5
BB41	23713822	SOCKET, B-B 2MM 56P
BB42	23713801	PLUG, B-B 56P 2MM
D855B	23717241	SCREW, BITTB3X8ECO
D857B	23717241	SCREW, BITTB3X8ECO
D859B	23717241	SCREW, BITTB3X8ECO
DE81B	23717241	SCREW, BITTB3X8ECO
DE82B	23717241	SCREW, BITTB3X8ECO
DE83B	23717241	SCREW, BITTB3X8ECO
⚠ F801	23144319	FUSE, CARTRIDGE, 125V 8A, 5.2X20
F801A	23165433	FUSE HOLDER, 5.2
⚠ F820	23144378	FUSE, RADIAL LEAD SUB-MINIATUR 250V 2A
⚠ F855	23144715	FUSE, CARTRIDGE 5.2X20, 125V 5A
⚠ F857	23144715	FUSE, CARTRIDGE 5.2X20, 125V 5A
⚠ F859	23144714	FUSE, AXIAL 125V 4.0A
⚠ F899	23144326	FUSE, CARTRIDGE, 250V 2A, 5.2X20
F899A	23165433	FUSE HOLDER, 5.2
⚠ FE01	23144710	FUSE, CARTRIDGE 5.2X20, 125V 2A
⚠ FE30	23144709	FUSE, AXIAL 125V 1.5A
⚠ FE31	23144709	FUSE, AXIAL 125V 1.5A
⚠ FE32	23144709	FUSE, AXIAL 125V 1.5A
⚠ FE33	23144710	FUSE, CARTRIDGE 5.2X20, 125V 2A
⚠ FE81	23144714	FUSE, AXIAL 125V 4.0A
⚠ FE82	23144714	FUSE, AXIAL 125V 4.0A
⚠ FE83	23144714	FUSE, AXIAL 125V 4.0A
⚠ FE84	23144707	FUSE, AXIAL 125V 630MA
⚠ FF34	23144709	FUSE, AXIAL 125V 1.5A
H003	23344525	SWITCH, 2I3O BUNPAI US DIG RSU143
M601C #1	23103840	FERRITE CORE, TFE1013
#3	23103840	FERRITE CORE, TFE1013
M811A #1	23103778	FERRITE CORE, TFE1008
#3	23103778	FERRITE CORE, TFE1008
M811B #1	23103778	FERRITE CORE, TFE1008
#3	23103778	FERRITE CORE, TFE1008

Location No.		Parts No.	Description
M902A	#1	23103840	FERRITE CORE, TFE1013
	#3	23103840	FERRITE CORE, TFE1013
M906A	#1	23103778	FERRITE CORE, TFE1008
	#3	23103778	FERRITE CORE, TFE1008
M906B	#1	23103778	FERRITE CORE, TFE1008
	#3	23103778	FERRITE CORE, TFE1008
MB91A	#1	23103839	FERRITE CORE, TFE1012
	#3	23103839	FERRITE CORE, TFE1012
MC01A	#1	23103840	FERRITE CORE, TFE1013
	#3	23103840	FERRITE CORE, TFE1013
MC01E	#1	23103840	FERRITE CORE, TFE1013
	#3	23103840	FERRITE CORE, TFE1013
MJ22		23389360	FFC, P0.5-50P-L80(GOLD)
MJ60		23389360	FFC, P0.5-50P-L80(GOLD)
MT201		23368929	CABLE, PHONO 2C-VV 240MM C4-0769ALI
MT202		23368929	CABLE, PHONO 2C-VV 240MM C4-0769ALI
MV01A	#1	23103839	FERRITE CORE, TFE1012
	#3	23103839	FERRITE CORE, TFE1012
⚠ P800		23713702	PLUG, 2P 11.88MM W VT
⚠ P801		23372117	POWER CORD, U/C 125V10A HSV 5 CMC-02P 5
P801A	#1	23103840	FERRITE CORE, TFE1013
	#3	23103840	FERRITE CORE, TFE1013
P805		23164965	PLUG, 4P, W-P3504-#02
P811A		23713713	PLUG, 2P 3.96MM VH
P891		23713761	PLUG, NP 2.5MM G, B10B-EH-F1A
P892		23713763	PLUG, NP 2.5MM G, B12B-EH-F1A
P901		23713754	PLUG, 3P 2.5MM G, B3B-EH-F1-TV4
P902A		23164563	PLUG, 3P
P903		23713755	PLUG, 4P 2.5MM G, B4B-EH-F1-TV4
P905		23713756	PLUG, 5P 2.5MM G, B5B-EH-F1-TV4
PB22		23713756	PLUG, 5P 2.5MM G, B5B-EH-F1-TV4
PB60		23367070	PLUG, 10P 2.5MM G, JST-EH B10B-EH-F1A
PB80A		23713976	CONNECTOR, BB 26P SOCKET 2-917362-6
PB80B		23713975	CONNECTOR, BB 26P PLUG 2-917360-6
PB92		23713755	PLUG, 4P 2.5MM G, B4B-EH-F1-TV4
PB501		23023218	JACK, FHI3.5 2P STERE SMK LGA6502-0101
PB504		23713756	PLUG, 5P 2.5MM G, B5B-EH-F1-TV4
PB505		23713755	PLUG, 4P 2.5MM G, B4B-EH-F1-TV4
PC01		23713622	CONNECTOR, 2MM 5P SMD B5B-PH-SM4-TBT
PC02		23903251	SOCKET, CFH050-C7-1180
PC02A		23903257	SOCKET, CFHEJT-90-0000
PC03		23903250	SOCKET, CLE9042-0101F
PJ22A		23757180	CONNECTOR, FH12-50S-0.5SV(55)
PJ60A		23757180	CONNECTOR, FH12-50S-0.5SV(55)
PV01		23023094	JACK, PIN 1S6P SMK LAP5120-0205FC
PV02		23365949	JACK, 5P, 1E:OFF+2R:OFF+2L:OFF, JALC @U104
		23023184	JACK, 1S3P, LAP5100-1502F @UV04
PV03		23365949	JACK, 5P, 1E:OFF+2R:OFF+2L:OFF, JALC
PV04		23365920	JACK, 1E:OFF+2R:OFF+2L:OFF JALC JACK 5P
PV05		23023439	JACK, PIN 4/4P JALCO YKC21-4672N
PV60		23713761	PLUG, NP 2.5MM G, B10B-EH-F1A
PZ01		23713951	CONNECTOR, CONNECT S9B-PH-K-S(LF)
Q601B		23717241	SCREW, BITTB3X8ECO
Q891B		23717241	SCREW, BITTB3X8ECO
⚠ S810		23344522	SWITCH, SPVF11
SA1		23344507	SWITCH, PUSH, SKHHLMA010
SA2		23344507	SWITCH, PUSH, SKHHLMA010
SA3		23344507	SWITCH, PUSH, SKHHLMA010
SA4		23344507	SWITCH, PUSH, SKHHLMA010
SA5		23344507	SWITCH, PUSH, SKHHLMA010
SA6		23344507	SWITCH, PUSH, SKHHLMA010
SA7		23344507	SWITCH, PUSH, SKHHLMA010
SA8		23344507	SWITCH, PUSH, SKHHLMA010
⚠ SR81		23146590	RELAY, DLS5D1-O(M)0.25W
⚠ SR82		23146584	RELAY, DC12V, TV5, DG-3
⚠ UF02		23125950	DC FAN, 2806KL-04W-B39-B01
W661A	#1	23351333	SPEAKER, 120X120 8-OHM 20W SPK-1479AO
	#2	23351334	SPEAKER, 120X120 16-OHM 10W SPK-1480AO
	#3	23351334	SPEAKER, 120X120 16-OHM 10W SPK-1480AO
W661B	#2	23351334	SPEAKER, 120X120 16-OHM 10W SPK-1480AO
	#3	23351334	SPEAKER, 120X120 16-OHM 10W SPK-1480AO
W662A	#1	23351333	SPEAKER, 120X120 8-OHM 20W SPK-1479AO
	#2	23351334	SPEAKER, 120X120 16-OHM 10W SPK-1480AO
	#3	23351334	SPEAKER, 120X120 16-OHM 10W SPK-1480AO
W662B	#2	23351334	SPEAKER, 120X120 16-OHM 10W SPK-1480AO
	#3	23351334	SPEAKER, 120X120 16-OHM 10W SPK-1480AO

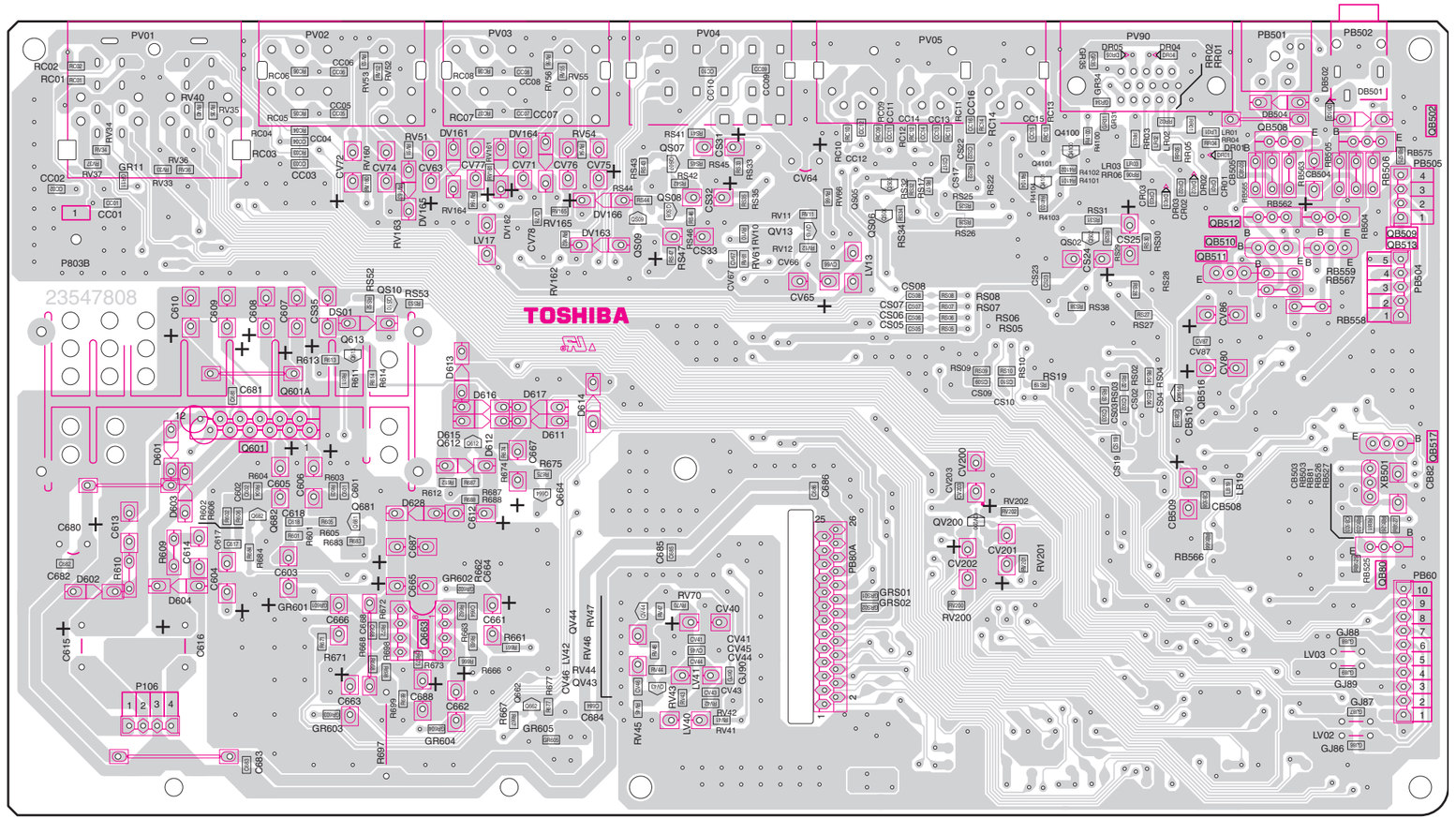
Location No.		Parts No.	Description
XB501		23153504	CERAMIC RESONATOR, 8.00MHZ 25OHM
XC01		23153589	CRYSTAL RESONATOR, XTAL 12MHZ
PC BOARD ASSEMBLIES			
✻ U102		23764394	PC BOARD ASSY, MOTHER PU PD2140B
✻ U104		23764260	PC BOARD ASSY, BACK AV PU PD2141A-1
✻ U105		23764261	PC BOARD ASSY, IR BLASTER PU PD2141A-2
✻ U107		23764265	PC BOARD ASSY, TUNER-RF PU PD2147A
✻ U801		23764388	PC BOARD ASSY, MAIN POWER PU PD2139B-1
✻ U802		23764389	PC BOARD ASSY, SUB POWER PU PD2139B-2
✻ UA03		23764390	PC BOARD ASSY, DOOR SW PU PD2139B-3
✻ UA06		23764392	PC BOARD ASSY, FRONT KEY PU PD2139B-5
✻ UA07		23764393	PC BOARD ASSY, LED PU PD2139B-6
✻ UC01		23764254	PC BOARD ASY, MULTI CARD PU PD2142A
✻ UD01		23148444	MODULE, SIGNAL DSB-SUM070C1
✻ UD02		23148435	MODULE, SEINE DSB-SHU154A-
✻ UV04		23764391	PC BOARD ASSY, FRONT AV PU PD2139B-4
TUNER			
⚠ H001		23321536	TUNER, TIF US HOR IIC PH 864M ENG36A36GF
ACCESSORIES			
A701	#1	23015123	CARTON
	#2	23015081	CARTON
	#3	23015126	CARTON
A703	#1	23580013	PACKING, TOP PACKING
	#2	23946999	PACKING, TOP PACKING
	#3	23580015	PACKING, TOP PACKING
A708	#1	23580012	PACKING, BOTTOM PACKING
	#2	23946998	PACKING, BOTTOM PACKING
	#3	23580014	PACKING, BOTTOM PACKING
A709	#2	23015080	CARTON, BASE TRAY
A710	#1	23946774	PACKING, SUPPORT POST
	#2	23918406	CARTON, SUPPORT POST
	#3	23946775	PACKING, SUPPORT POST
⚠ K912		23306627	REMOCON HAND UNIT, CT-90233
K913		23306614	REMOCON HAND UNIT, 57H93
⚠ Y101		23566691	OWNERS MANUAL, ENGLISH/FRE
Y101F	#1	23566692	OWNERS MANUAL, FRENCH
Y102		23589650	SHEET, IMPORTANT NOTES
CABINET PARTS			
⚠ A025		23940403	PIECE, 05 LAMP TUNNEL ASSY
⚠ A026		23940409	PIECE, 05 LAMP DOOR ASSY
⚠ A100		23533624	COVER, BASE, PURCHASE ASSY
⚠ A102	#1	23527387	GRILLE, SPK GRILL ASY LEFT
⚠	#2	23527388	GRILLE, SPK GRILL ASY LEFT
⚠	#3	23527389	GRILLE, SPK GRILL ASY LEFT
⚠ A103	#1	23527378	GRILLE, SPEAKER GRILL ASY RT
⚠	#2	23527381	GRILLE, SPEAKER GRILL ASY
⚠	#3	23527384	GRILLE, SPEAKER GRILL ASY RT
A184		23469392	INSULATOR, 05_LENS_GASKET
⚠ A201	#1	23533445	COVER, BEZEL ASM
⚠	#2	23533440	COVER, BEZEL ASM
⚠	#3	23533447	COVER, BEZEL ASM
A202	#1	23433352	DECORATIVE, BEZEL DECO ASM
	#2	23533442	COVER, BEZEL DECO ASM
	#3	23433354	DECORATIVE, BEZEL DECO ASM
A220		23451976	PUSH CATCH, CLICK
A225		23940084	PIECE, STRIKER
A226		23940084	PIECE, STRIKER
⚠ A271	#1	23405480	OPTICAL ENGINE, LV-682 TB 0C
⚠	#2	23405481	OPTICAL ENGINE, LV-682 TB 0D
⚠	#3	23405482	OPTICAL ENGINE, LV-682 TB 0E
A333		23450868	PANEL, AV MOUNT ASY
A402		23533434	COVER, REAR COVER PURCHASE
⚠ A411	#1	23429384	CABINET, BACK COVER
⚠	#2	23533305	COVER, BACK COVER PROPER
A421	#1	23533969	COVER, BACK COVER ASSY
	#1	23533427	COVER, REAR
	#2	23533427	COVER, REAR
	#3	23533971	COVER, BACK COVER ASSY
	#3	23533427	COVER, REAR
A422		23084862	BRACKET, REAR VENT
E998Z		23311153	EXCHANGE LAMP, PJ-D95-LMP
K501	#1	23311151	SCREEN, 56K5NL SCREEN56K5NL

Location No.		Parts No.	Description
	#2	23311149	SCREEN, 62K5N LENTICULAR SHEET SCREEN62K5NL
	#3	23311144	SCREEN, 72K5M LENTICULAR SHEET SCREEN72K5ML
K502	#1	23311157	SCREEN, 56K5NF SCREEN56K5NF
	#2	23311158	SCREEN, 62K5NF SCREEN62K5NF
	#3	23311145	SCREEN, 72K5M FRESNEL SHEET SCREEN72K5MF
K601	#1	23405488	MIRROR, 56G5M3 MIRROR56G5M3
	#2	23405489	MIRROR, 62G5M5 MIRROR62G5M5
	#3	23405490	MIRROR, 72G5M5 MIRROR72G5M5
SK01		23587525	SERVICE KIT, LAMP FAN
SK02		23587526	SERVICE KIT, DMD FAN
SK03		23587527	SERVICE KIT, BALLAST FAN
SK04		23587528	SERVICE KIT, THERMOSTAT
SK06		23587536	SERVICE KIT, B TO F CABLE
SK08		23587538	SERVICE KIT, S TO F CABLE
SK09		23587539	SERVICE KIT, FAN TRANSFER CABLE

Location No.	Parts No.	Description

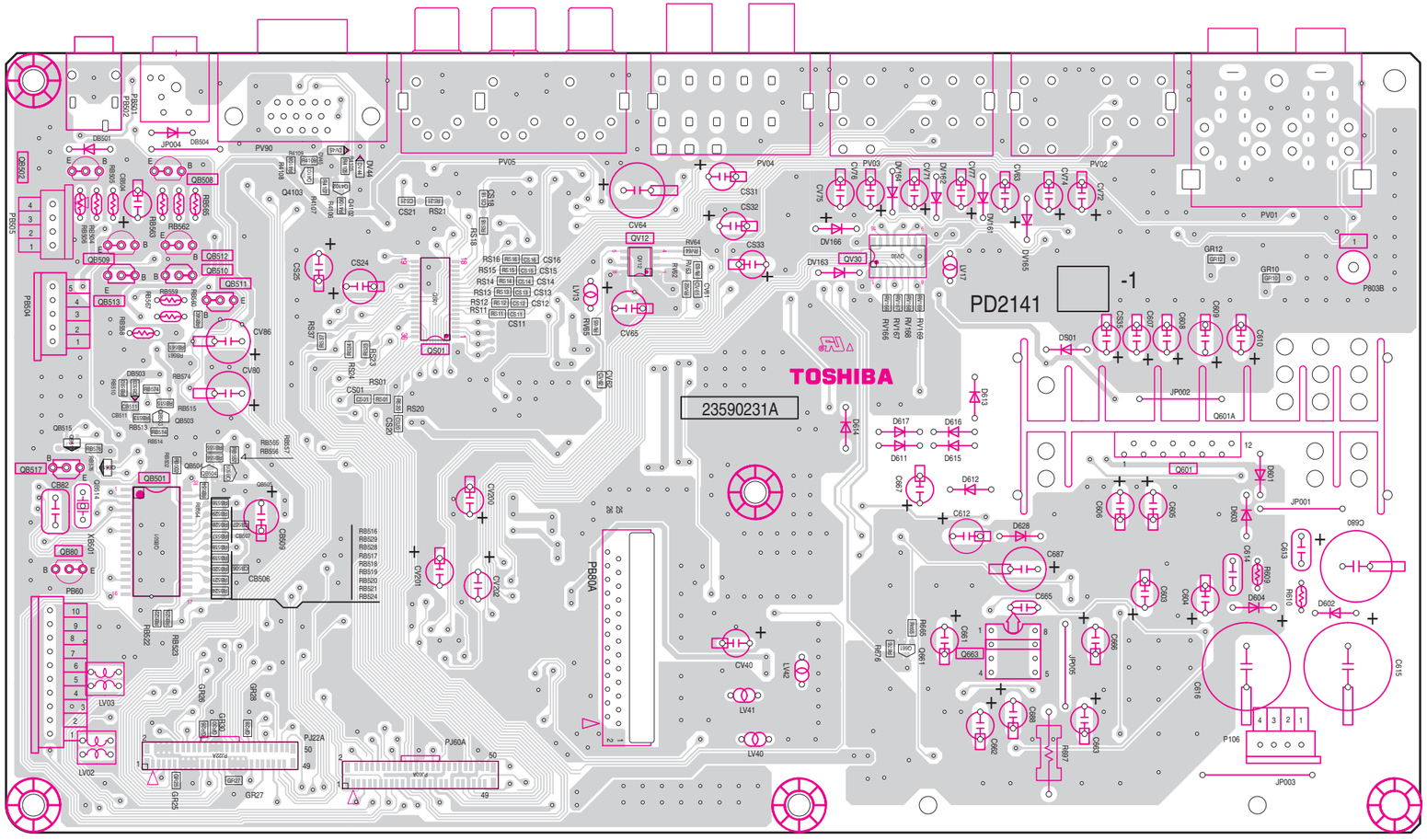
BACK AV BOARD PD2141A-1 (U104)

BOTTOM (FOIL) SIDE



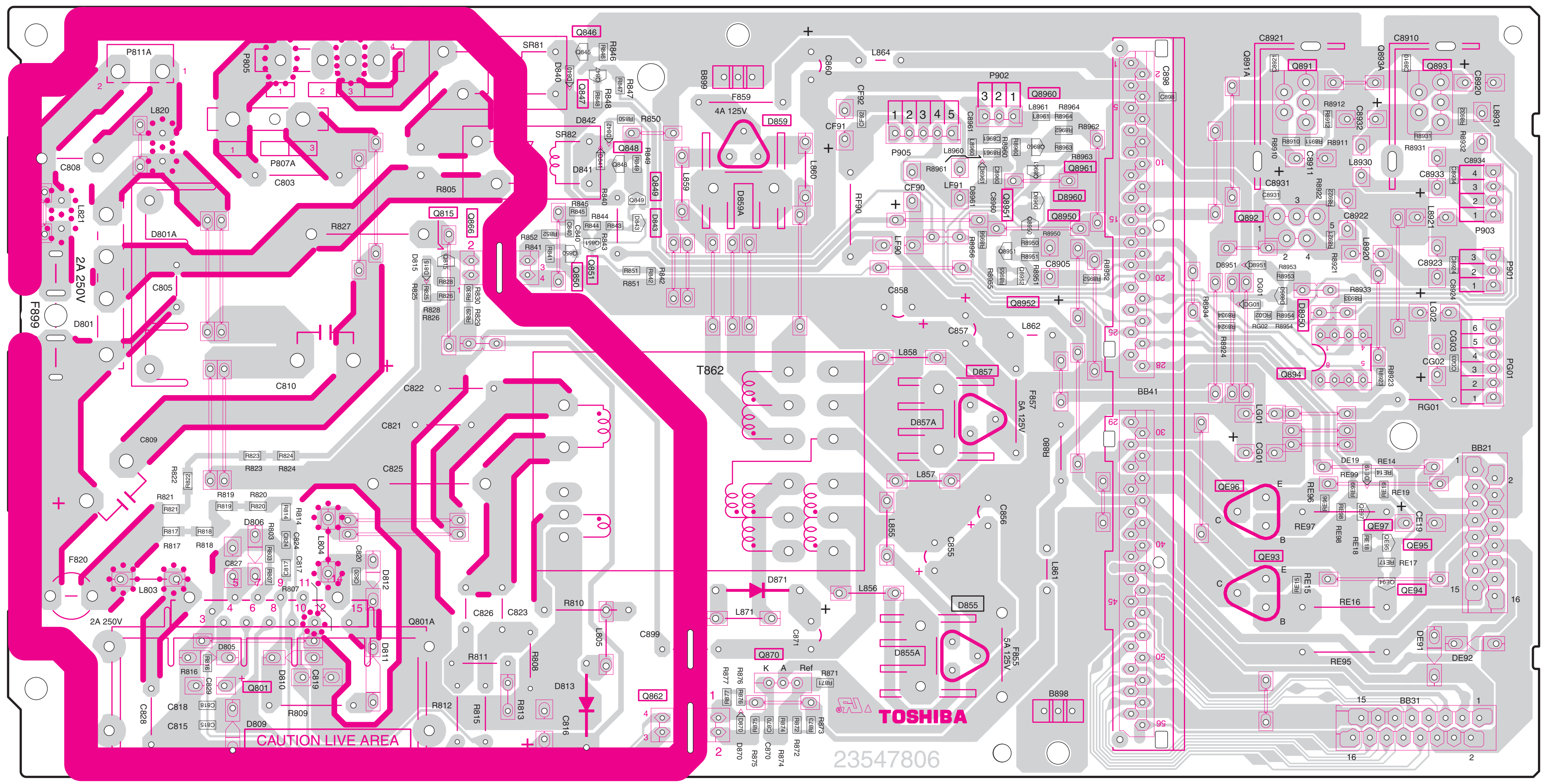
BACK AV BOARD PD2141A-1 (U104)

TOP (COMPONENT) SIDE



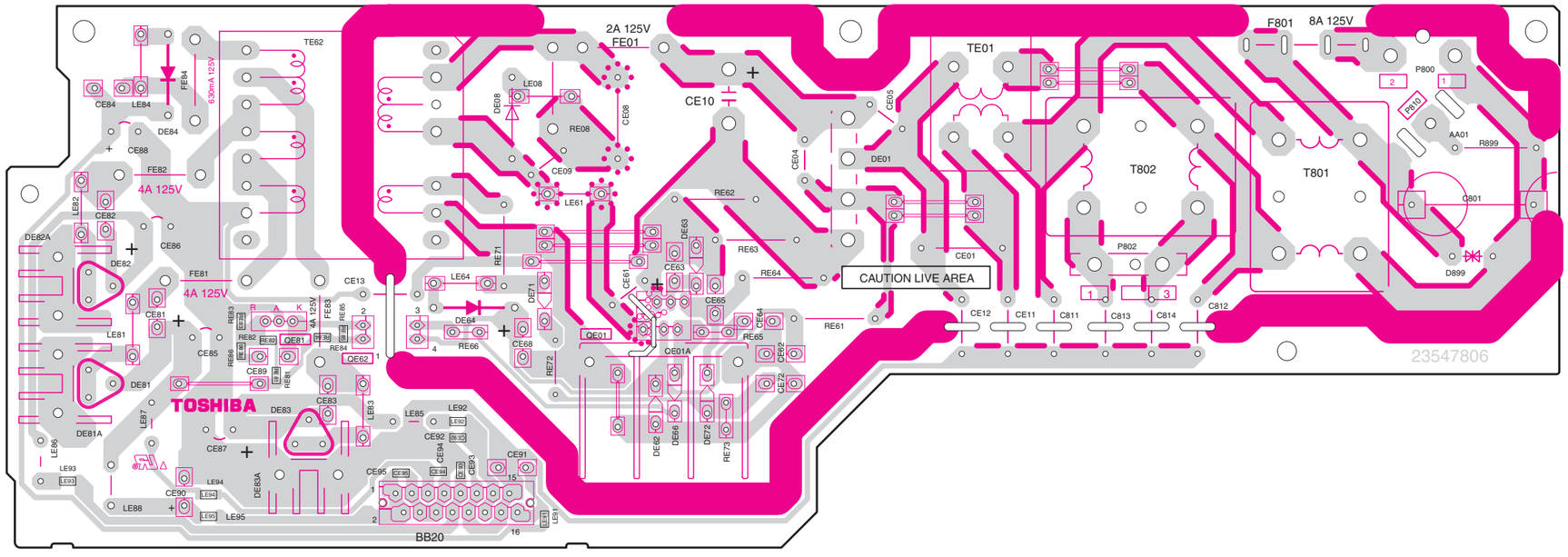
MAIN POWER BOARD PD2139B-1 (U801)

BOTTOM (FOIL) SIDE



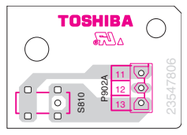
SUB POWER BOARD PD2139B-2 (U802)

BOTTOM (FOIL) SIDE



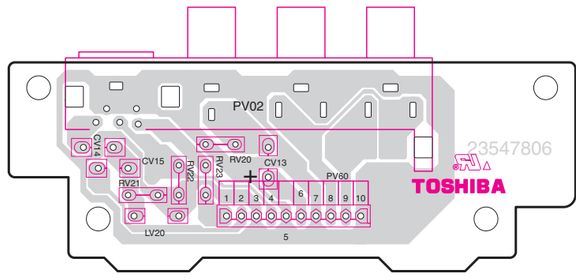
DOOR SW BOARD PD2139B-3 (UA03)

BOTTOM (FOIL) SIDE



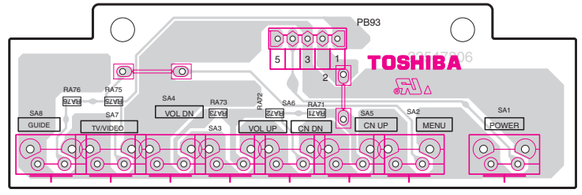
FRONT AV BOARD PD2139B-4 (UV04)

BOTTOM (FOIL) SIDE



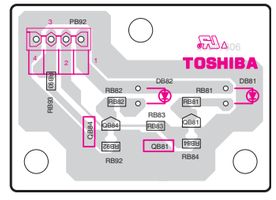
FRONT KEY BOARD PD2139B-5 (UA06)

BOTTOM (FOIL) SIDE



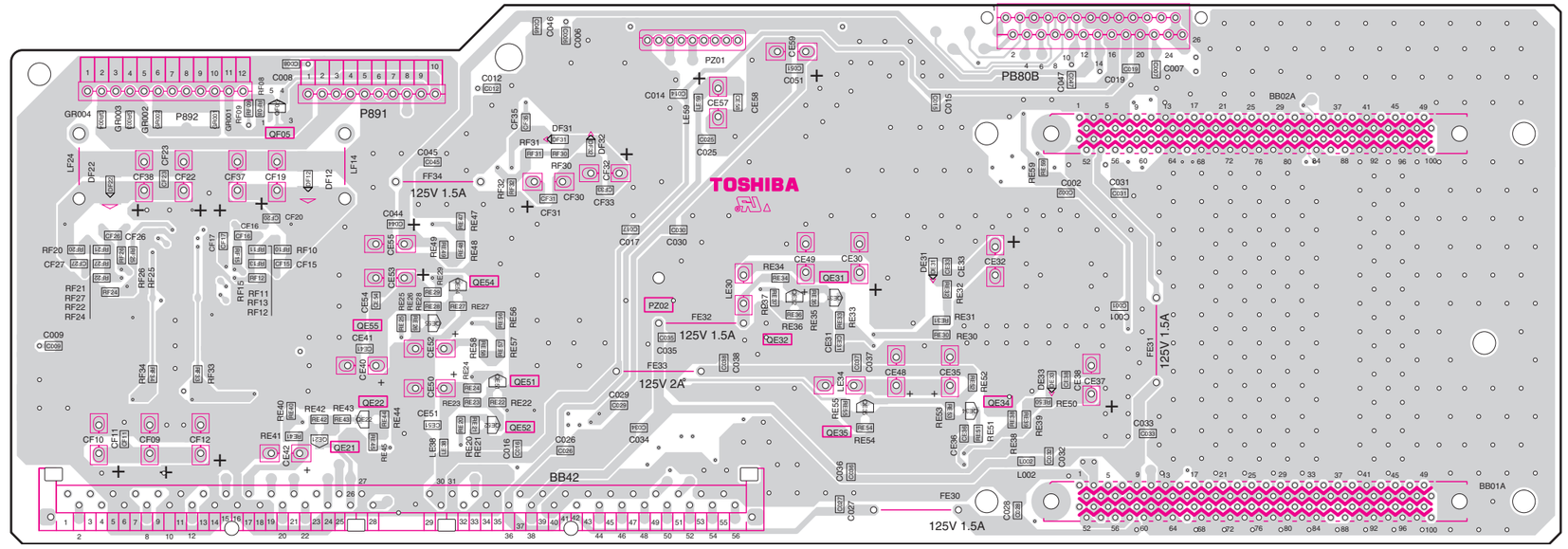
LED BOARD PD2139B-6 (UA07)

BOTTOM (FOIL) SIDE



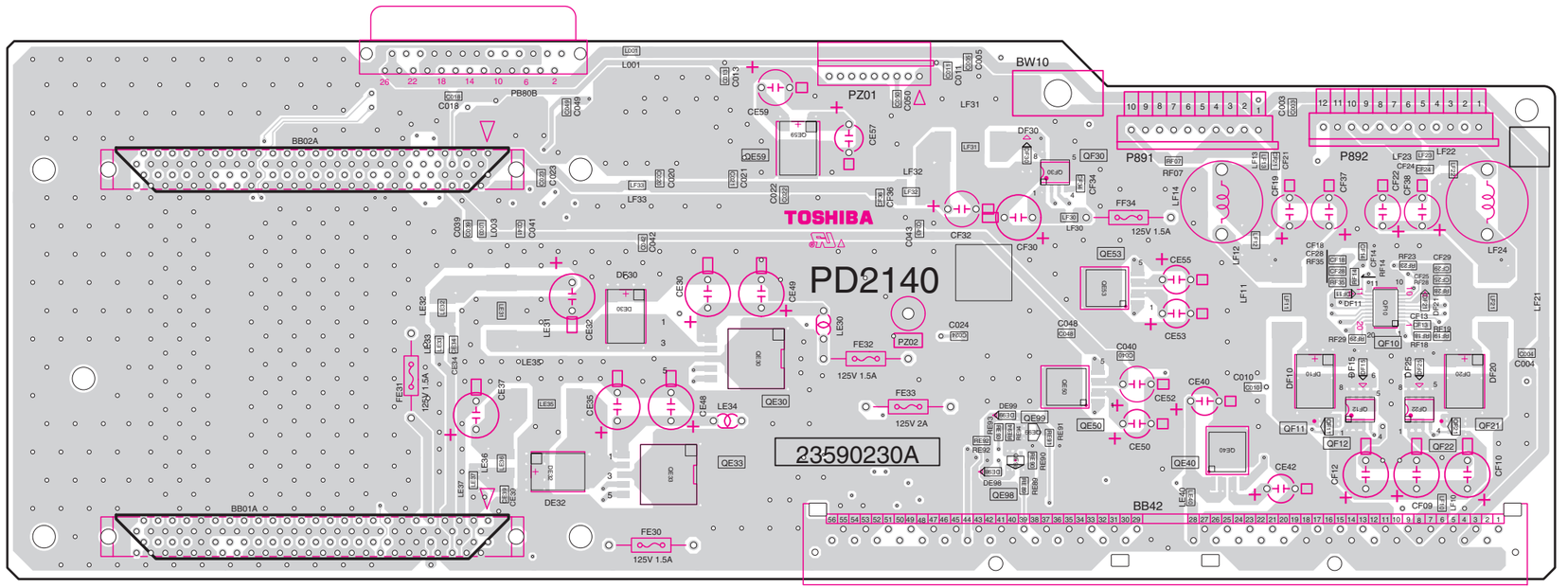
MOTHER BOARD PD2140B (U102)

BOTTOM (FOIL) SIDE



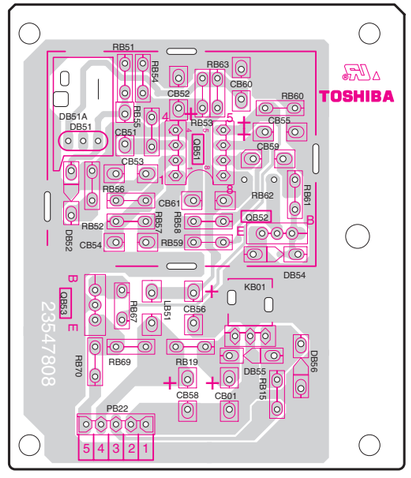
MOTHER BOARD PD2140B (U102)

TOP (COMPONENT) SIDE



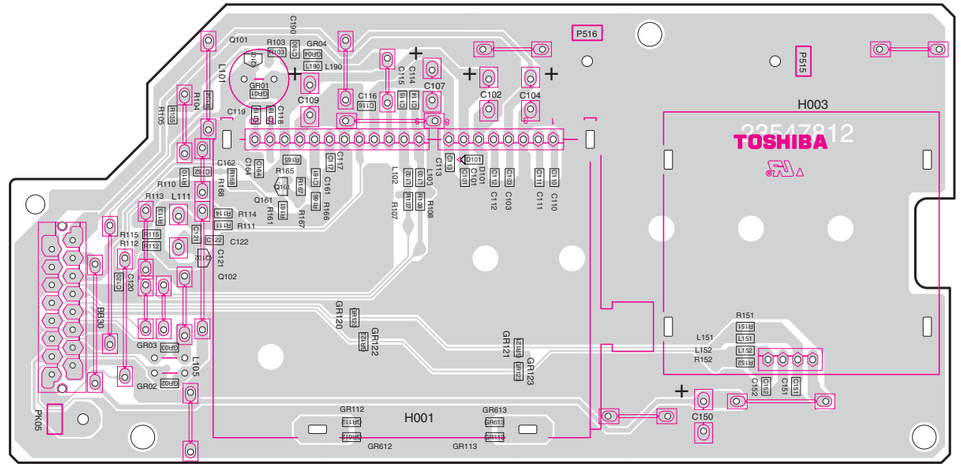
IR BLASTER BOARD PD2141A-2 (U105)

BOTTOM (FOIL) SIDE



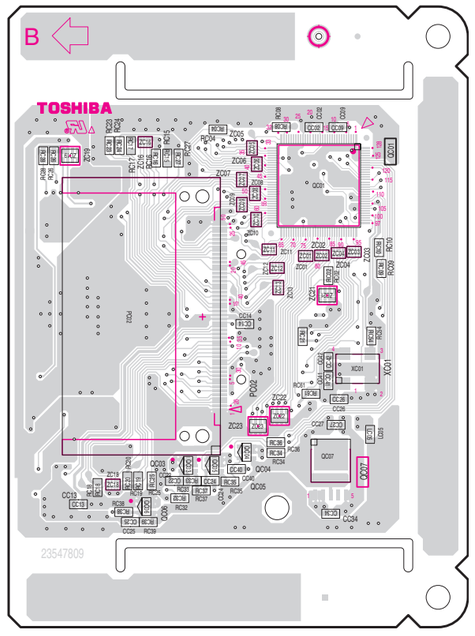
TUNER-RF BOARD PD2147A (U107)

BOTTOM (FOIL) SIDE



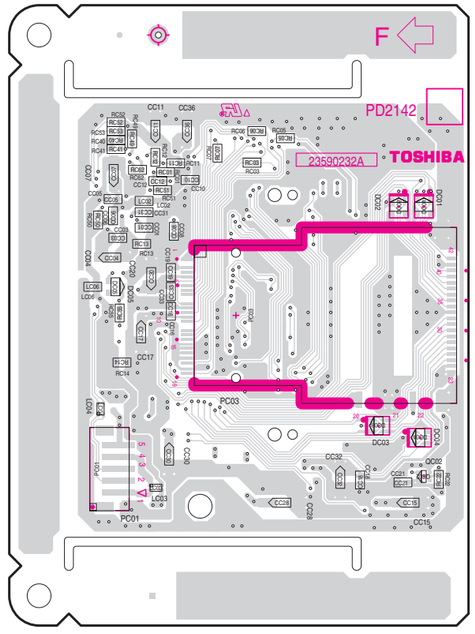
MULT CARD BOARD PD2142A (UC01)

BOTTOM (FOIL) SIDE



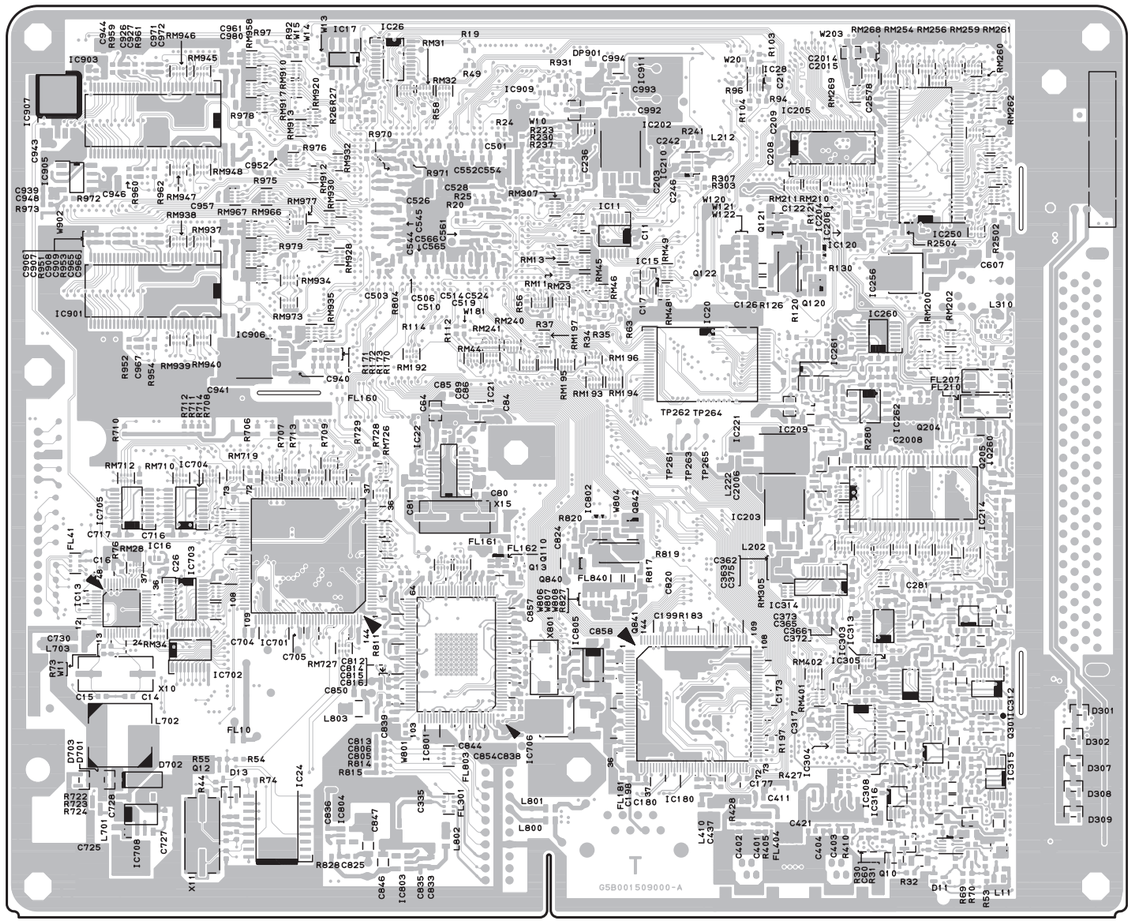
MULT CARD BOARD PD2142A (UC01)

TOP (COMPONENT) SIDE



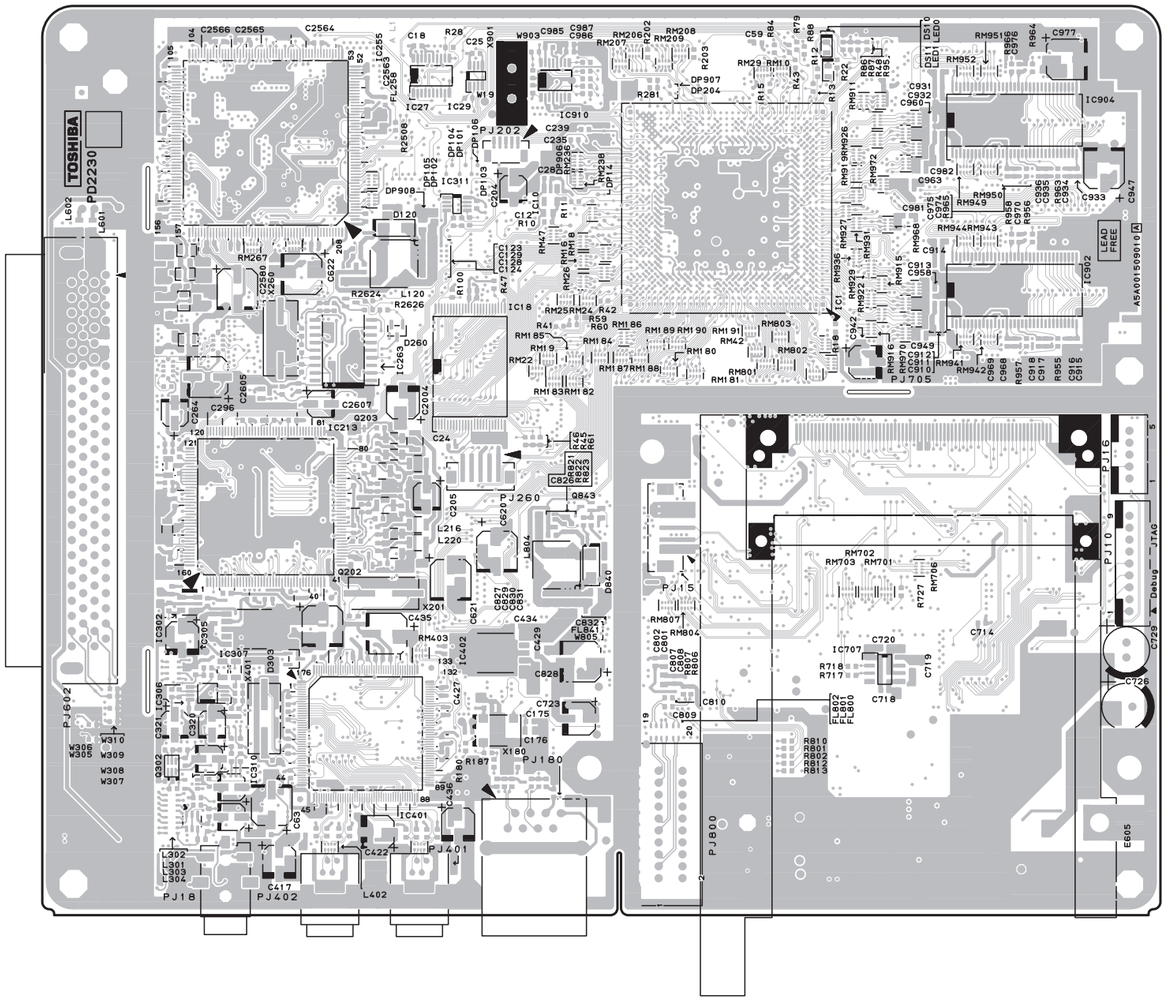
SEINE DIGITAL BOARD PD2230 (UD02)

BOTTOM (FOIL) SIDE



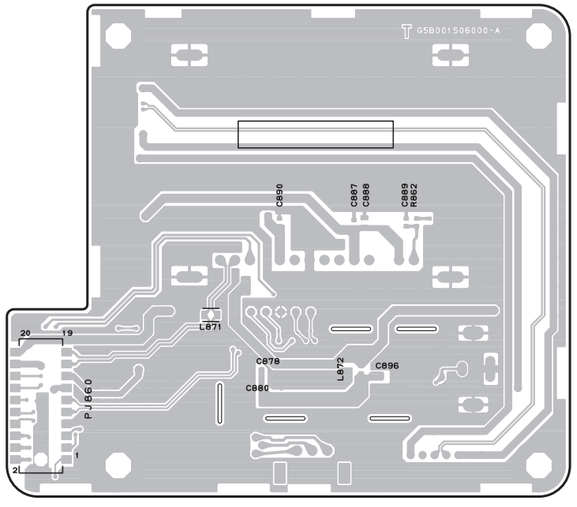
SEINE DIGITAL BOARD PD2230 (UD02)

TOP (COMPONENT) SIDE



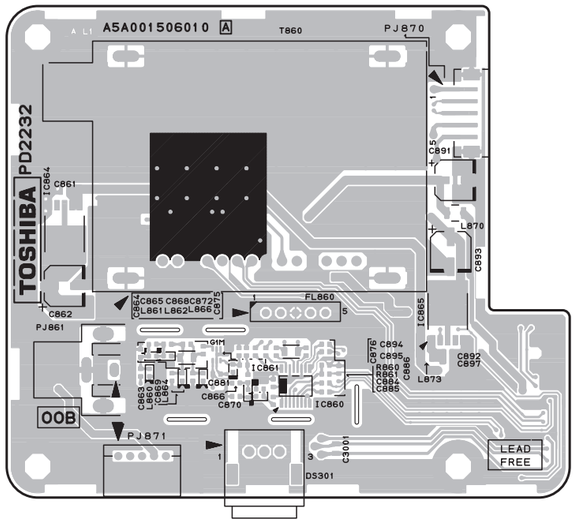
DIGITAL TUNER BOARD PD2232 (UD02)

BOTTOM (FOIL) SIDE

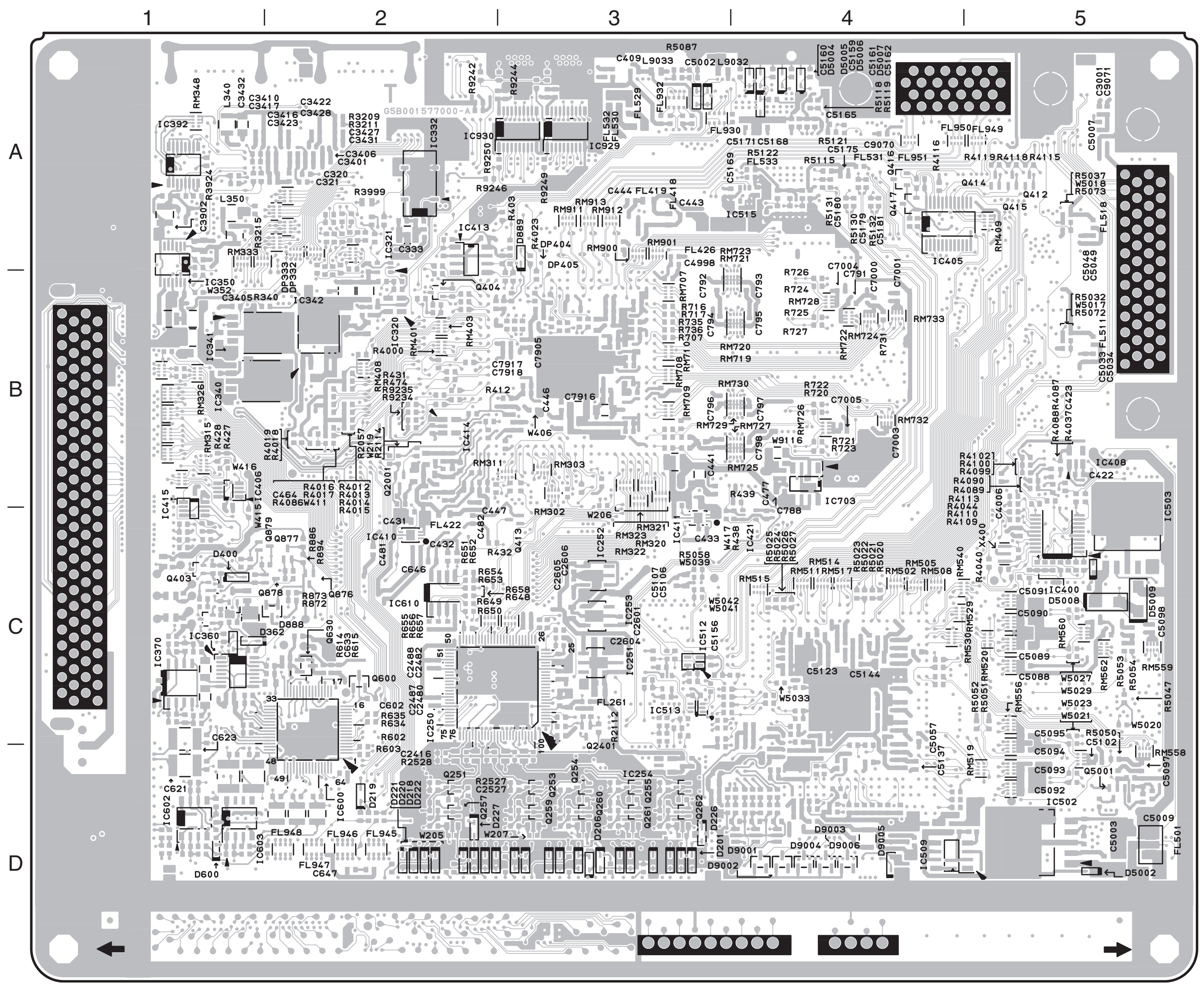


DIGITAL TUNER BOARD PD2232 (UD02)

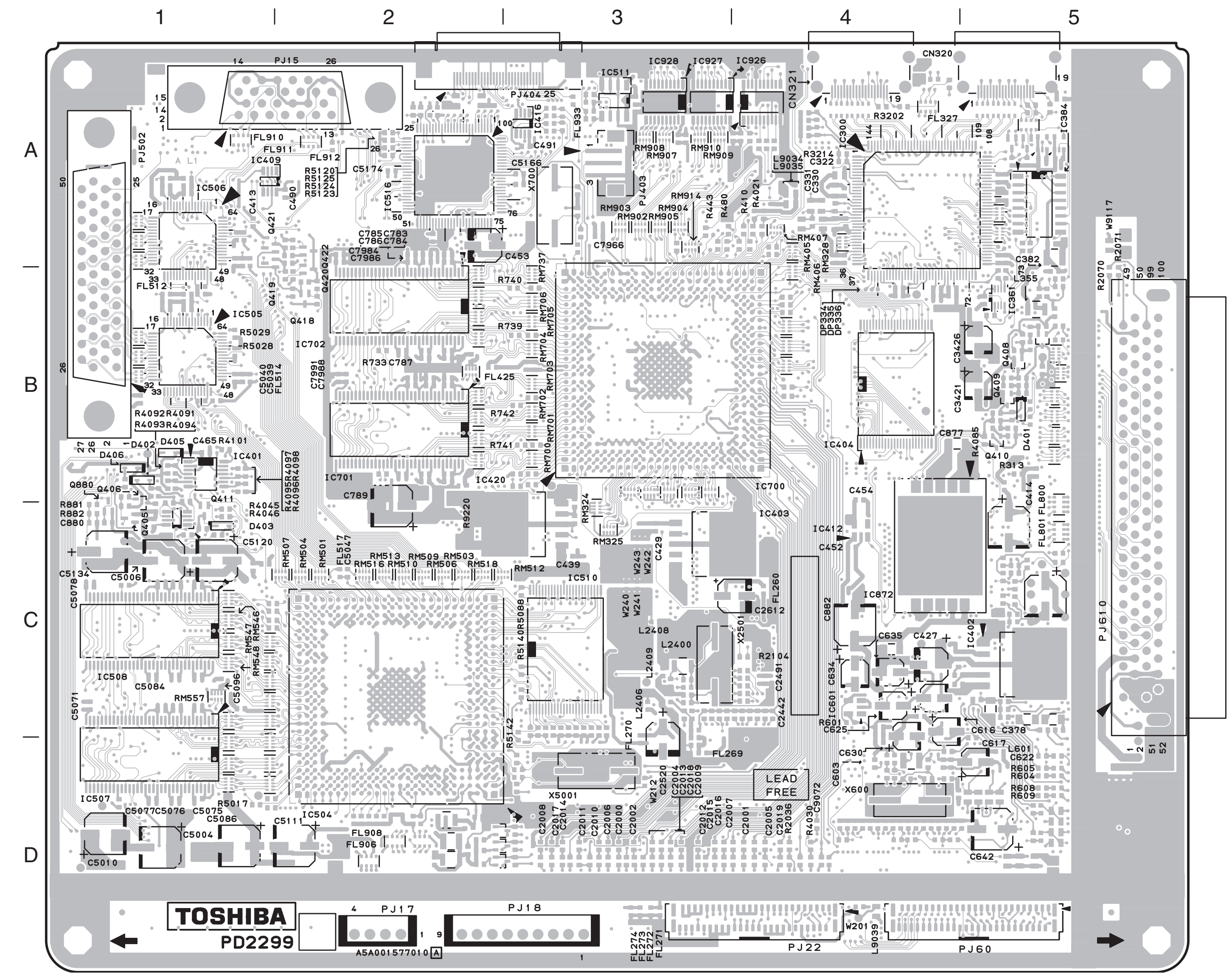
TOP (COMPONENT) SIDE



SIGNAL UNIT BOARD PD2299 (UD01)
BOTTOM (FOIL) SIDE

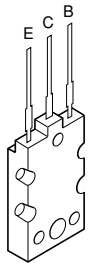


SIGNAL UNIT BOARD PD2299 (UD01)
TOP (COMPONENT) SIDE

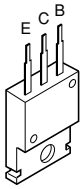


TERMINAL VIEW OF TRANSISTORS

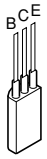
① 2SC5144
2SC5859



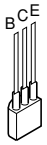
② 2SC3852
2SD1763A
2SC1569
2SC4544
2SA1788
2SA1306
2SA1186A



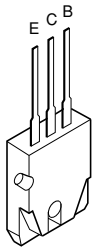
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2SC2482
2SC2655
2SC4721P



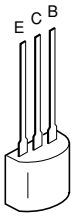
④ 2SC752
2SA562TM
2SA1015
2SC1815
2SC2878
2SC1740S
2SC2120
2SA9335



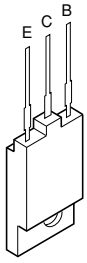
⑤ 2SA1788



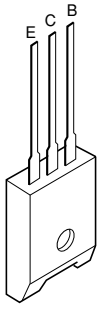
⑥ RN2203
RN2201
RN2004
RN1203
RN1204
RN2204
RN1205
RN1202
RN1201



⑦ 2SD1554
2SD2253
2SD1556
2SD2553
2SC5143



⑧ ON4409



SCHEMATIC DIAGRAM

MODEL : 56/62/72HM195

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF THIS MANUAL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on the MANUAL for this model. Do not degrade the safety of the receiver through improper servicing.

NOTE:

1. RESISTOR Resistance is shown in ohm [K = 1.000, M = 1.000.000]. All resistors are 1/6W and 5% tolerance carbon resistor, unless otherwise noted as the following marks.
   1/2R = Metal or Metal oxide of 1/2 watt
   1/2S = Carbon compsistion of 1/2 watt
   1RF = Fuse resistor of 1 watt
   10W = Cement of 10 watt
   K = ±10% G = ±2% F = ±1%
2. CAPACITOR Unless otherwise noted in schematic, all capacitor values less than 1 are expressed in F, and the values more than 1 in pF.
   All capacitors are ceramic 50V, unless otherwise noted as the following marks.
    Electolytic capacitor
    Mylar capacitor
3. The parts indicated with "⚠" have special characteristics, and should be replaced with identical parts only.
4. Voltages read with DIGITAL MULTI-METER from point indicated to chassing ground, using a color bar signal with all controls at normal, line voltage at 220 volts.
5. Waveforms are taken receiving color bar signal with enough sensitivity.
6. Voltage reading shown are nominal values and may vary ±20% except H.V.

■ SCHEMATIC DIAGRAM STRUCTURE:

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FRONT_KEY Circuit
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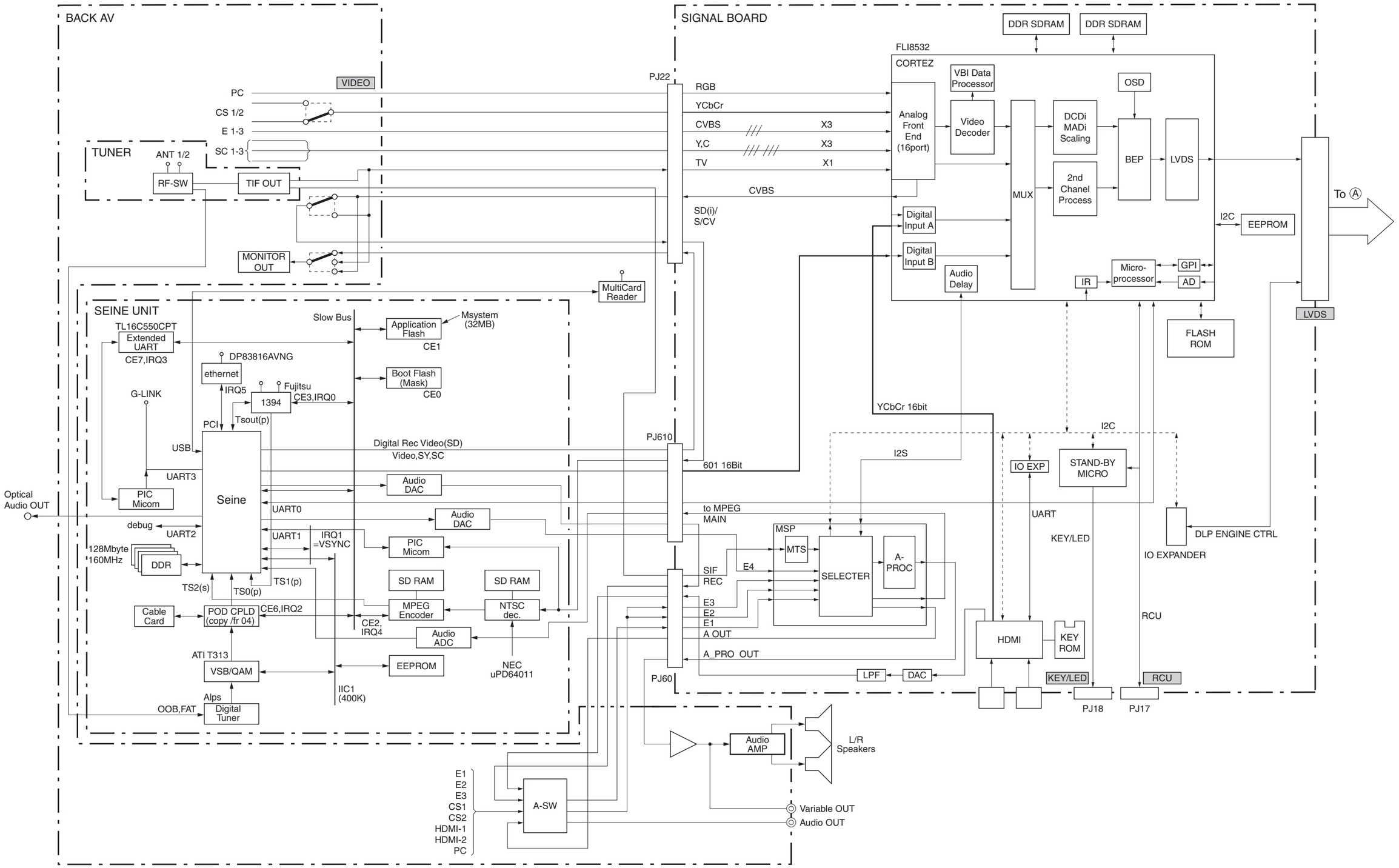
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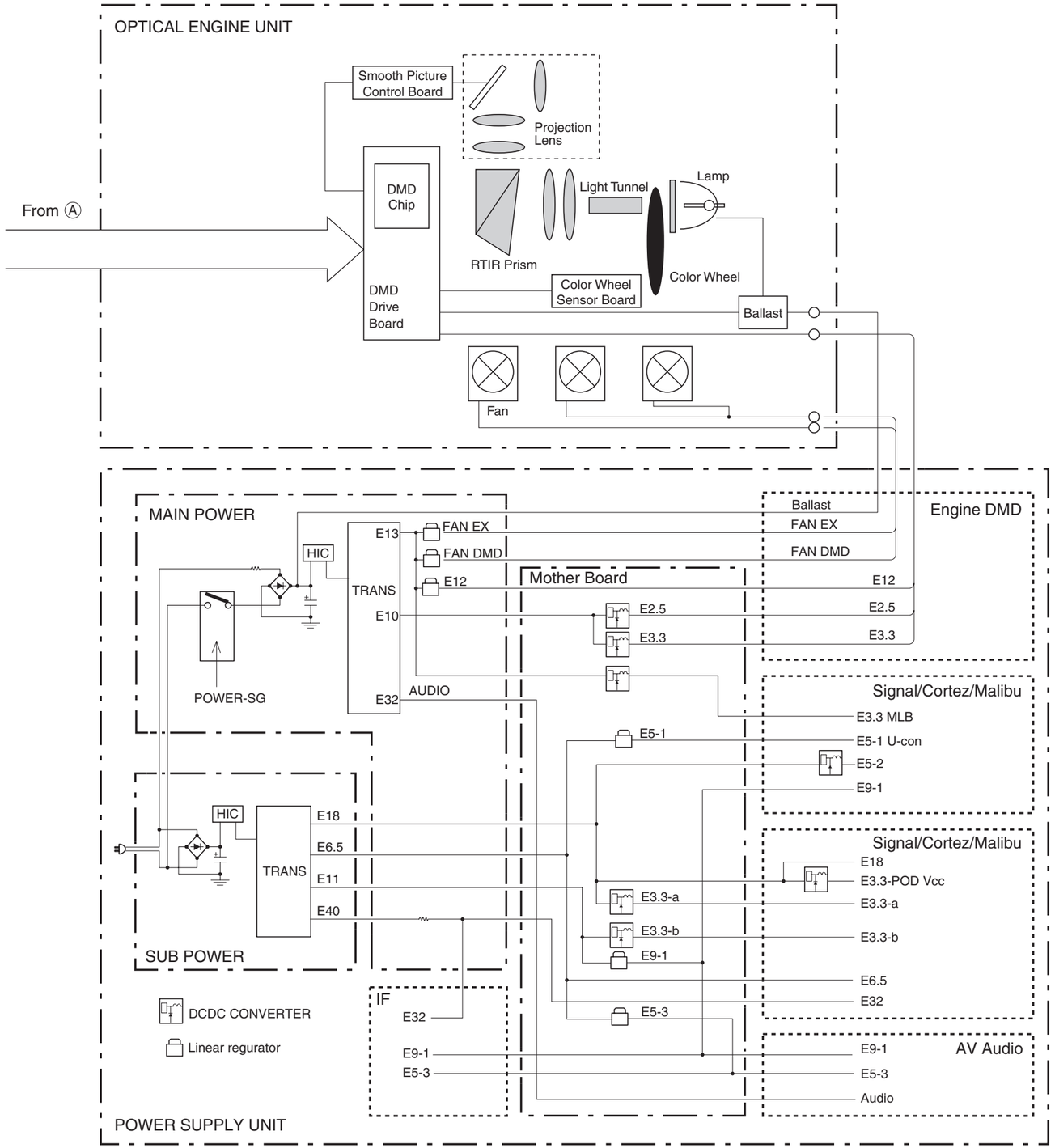
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CIRCUIT BLOCK DIAGRAM




OPTICAL ENGINE UNIT
Smooth Picture Control Board
Projection Lens
DMD Chip
From Ⓐ
Light Tunnel
Lamp
RTIR Prism
Color Wheel
Color Wheel Sensor Board
DMD Drive Board
Ballast
Fan
MAIN POWER
HIC
E13
FAN EX
FAN DMD
E12
TRANS
E10
E32
AUDIO
POWER-SG
Mother Board
E2.5
E3.3
E5-1
E5-2
E9-1
E3.3-a
E3.3-b
E5-3
E6.5
E32
SUB POWER
HIC
E18
E6.5
E11
E40
TRANS
IF
E32
E9-1
E5-3
DCDC CONVERTER
Linear regurator
POWER SUPPLY UNIT
Engine DMD
Ballast
FAN EX
FAN DMD
E12
E2.5
E3.3
Signal/Cortez/Malibu
E3.3 MLB
E5-1 U-con
E5-2
E9-1
Signal/Cortez/Malibu
E18
E3.3-POD Vcc
E3.3-a
E3.3-b
E6.5
E32
AV Audio
E9-1
E5-3
Audio

TOSHIBA CORPORATION
1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN

TOSHIBA

FILE NO. 020-200523

CIRCUIT DIAGRAMS

Projection Television

56HM195
62HM195
72HM195

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DOCUMENT CREATED IN JAPAN, Sept., 2005

SAFETY INSTRUCTIONS

SAFETY PRECAUTION

WARNING: Service should not be attempted by anyone unfamiliar with the necessary precautions on this receiver. The following are the necessary precautions to be observed before servicing this chassis.

1. An isolation transformer should be connected in the power line between the receiver and the AC line before any service is performed on the receiver.
2. When replacing a chassis in the cabinet, always be certain that all the prospective devices are put back in place, such as; non-metallic control knobs, insulating covers, shields, isolation resistor-capacitor network etc.

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the international hazard symbols on the schematic diagram and the parts list.
Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety character istics as specified in the parts list may create shock, fire, or other hazards.

(*1) GREEN PRODUCT PROCUREMENT

The EC is actively promoting the WEEE & RoHS Directives that define standards for recycling and reuse of Waste Electrical and Electronic Equipment and for the Restriction of the use of certain Hazardous Substances. From July 1, 2006, the RoHS Directive will prohibit any marketing of new products containing lead.

Increasing attention is given to issues related to the global environmental. Toshiba Corporation recognizes environmental protection as a key management tasks, and is doing its utmost to enhance and improve the quality and scope of its environmental activities. In line with this, Toshiba proactively promotes Green Procurement, and seeks to purchase and use products, parts and materials that have low environmental impacts.

Green procurement of parts is not only confined to manufacture. The same green parts used in manufacture must also be used as replacement parts.

(*2) LEAD-FREE SOLDER

This product is manufactured using lead-free solder as a part of a movement within the CE industry at large to be environmentally responsible. Lead-free solder must be used in the servicing and repair of this product.

WARNING

This product is manufactured using lead free solder.

DO NOT USE LEAD BASED SOLDER TO REPAIR THIS PRODUCT !

The melting temperature of lead-free solder is higher than that of leaded solder by 86°F to 104°F (30°C to 40°C). Use of a soldering iron designed for lead-based solders to repair product made with lead-free solder may result in damage to the component and or PCB being soldered. Great care should be made to ensure high-quality soldering when servicing this product — especially when soldering large components, through-hole pins, and on PCBs — as the level of heat required to melt lead-free solder is high.

SCHEMATIC DIAGRAM

MODEL : 56/62/72HM195

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF THIS MANUAL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on the MANUAL for this model. Do not degrade the safety of the receiver through improper servicing.

NOTE:

1. RESISTOR — Resistance is shown in ohm [K = 1.000, M = 1.000.000]. All resistors are 1/6W and 5% tolerance carbon resistor, unless otherwise noted as the following marks.
   1/2R = Metal or Metal oxide of 1/2 watt
   1/2S = Carbon compsistion of 1/2 watt
   1RF = Fuse resistor of 1 watt
   10W = Cement of 10 watt
   K = ±10% G = ±2% F = ±1%
2. CAPACITOR — Unless otherwise noted in schematic, all capacitor values less than 1 are expressed in F, and the values more than 1 in pF.
   All capacitors are ceramic 50V, unless otherwise noted as the following marks.
    Electolytic capacitor
    Mylar capacitor
3. The parts indicated with "⚠" have special characteristics, and should be replaced with identical parts only.
4. Voltages read with DIGITAL MULTI-METER from point indicated to chassing ground, using a color bar signal with all controls at normal, line voltage at 220 volts.
5. Waveforms are taken receiving color bar signal with enough sensitivity.
6. Voltage reading shown are nominal values and may vary ±20% except H.V.

■ SCHEMATIC DIAGRAM STRUCTURE:

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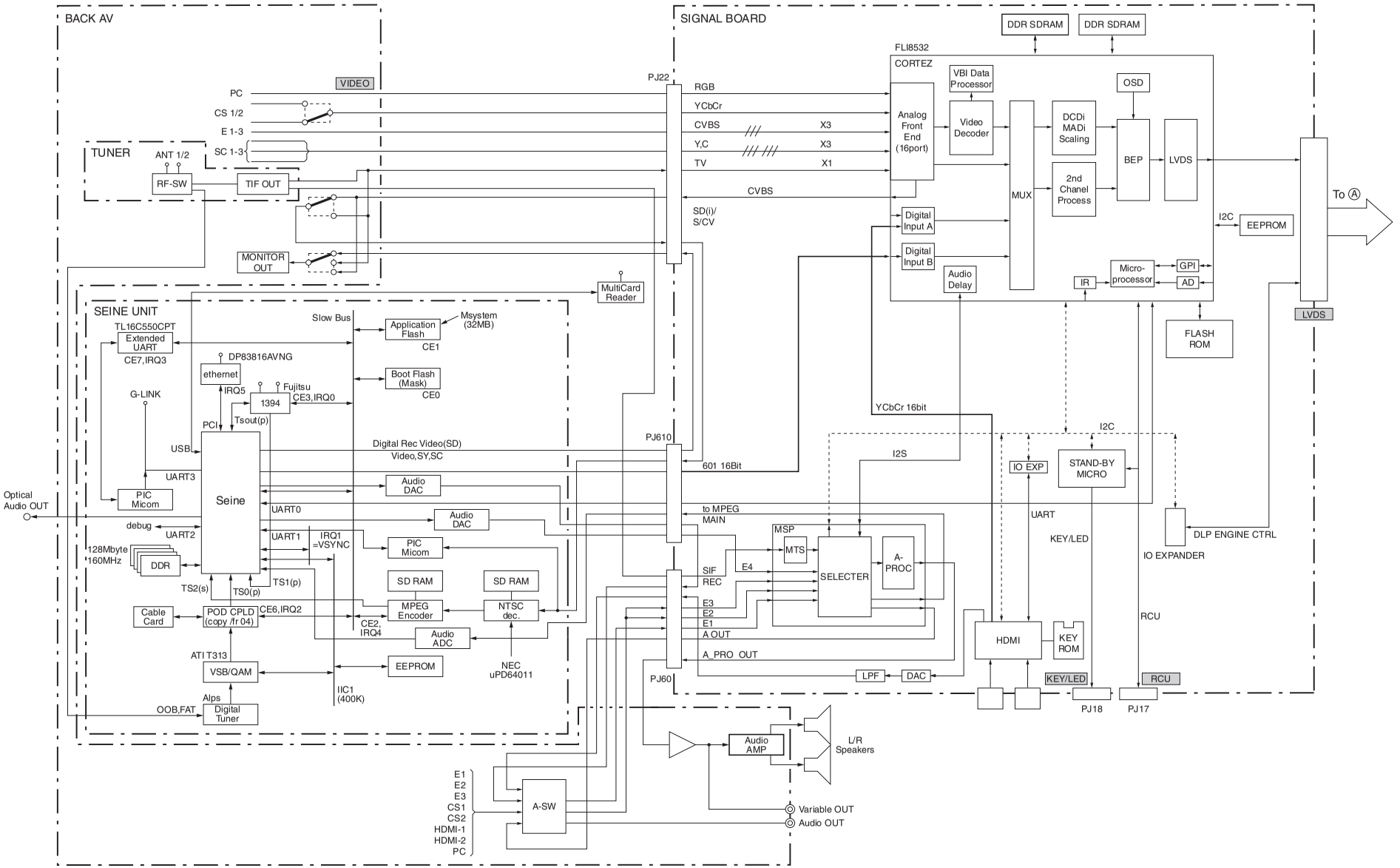
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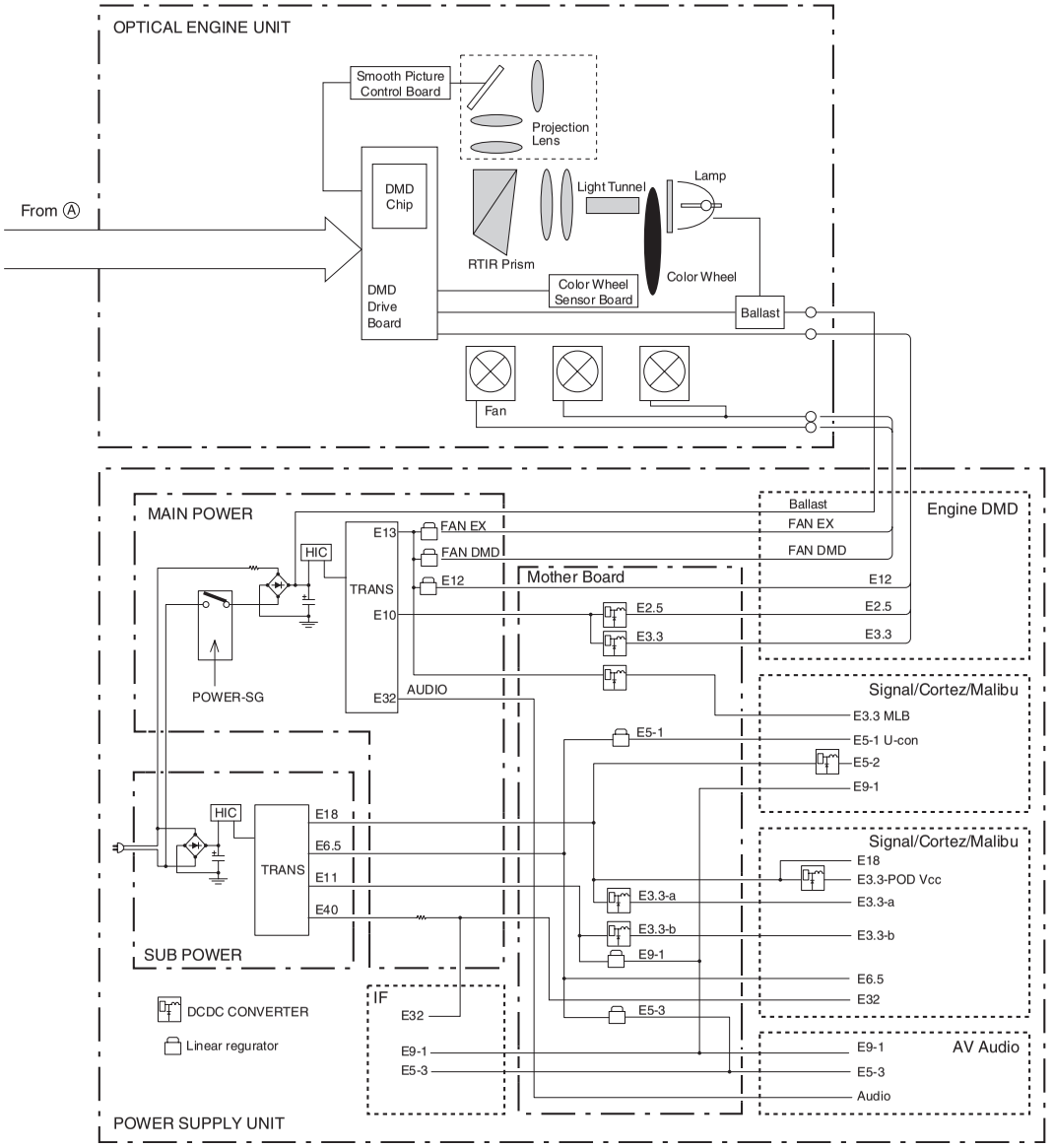
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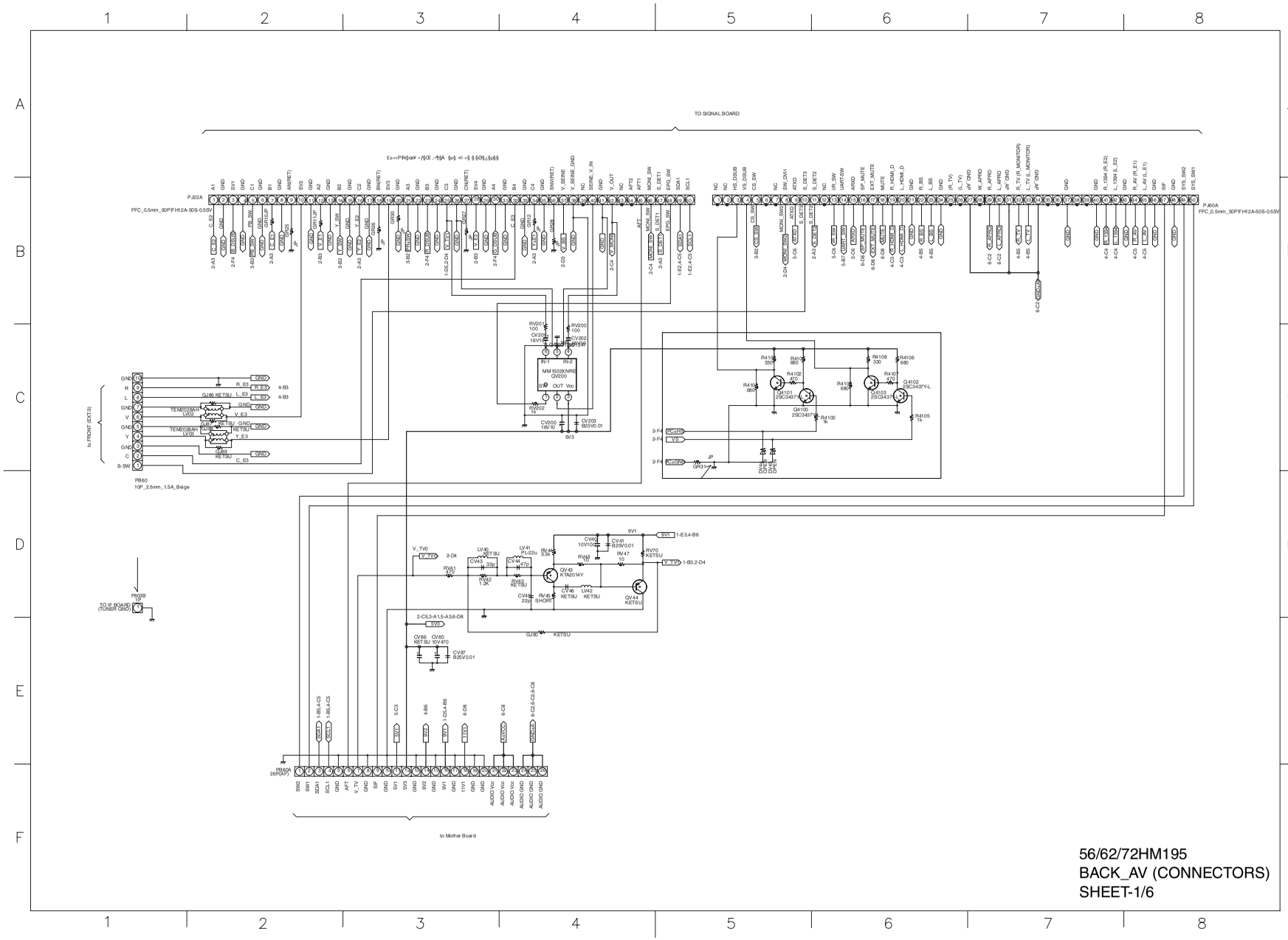
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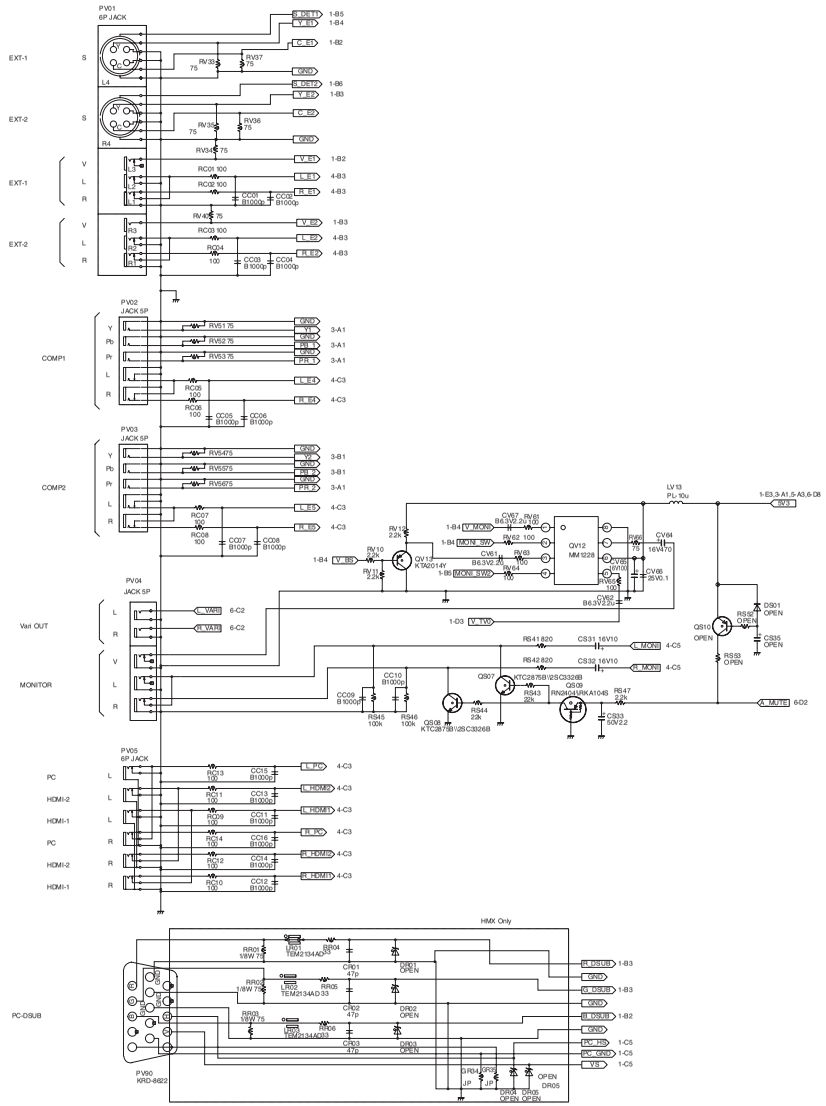
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CIRCUIT BLOCK DIAGRAM

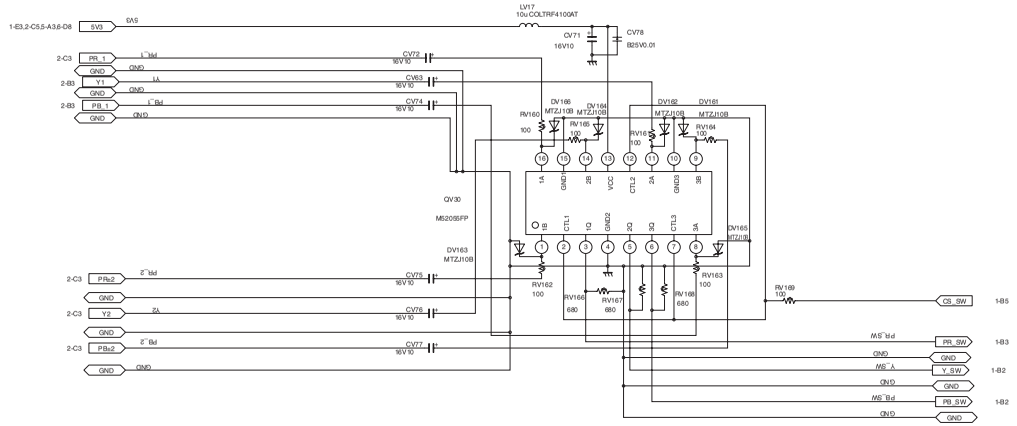



OPTICAL ENGINE UNIT
Smooth Picture Control Board
Projection Lens
DMD Chip
Lamp
Light Tunnel
From Ⓐ
RTIR Prism
Color Wheel
Color Wheel Sensor Board
DMD Drive Board
Ballast
Fan
MAIN POWER
HIC
E13
FAN EX
FAN DMD
TRANS
E12
E10
E32
AUDIO
POWER-SG
Mother Board
Ballast
FAN EX
FAN DMD
E12
E2.5
E3.3
Engine DMD
Signal/Cortez/Malibu
E3.3 MLB
E5-1 U-con
E5-2
E9-1
E5-1
HIC
E18
E6.5
E11
E40
TRANS
SUB POWER
E3.3-a
E3.3-b
E9-1
E5-3
Signal/Cortez/Malibu
E18
E3.3-POD Vcc
E3.3-a
E3.3-b
E6.5
E32
DCDC CONVERTER
Linear regurator
IF
E32
E9-1
E5-3
AV Audio
E9-1
E5-3
Audio
POWER SUPPLY UNIT

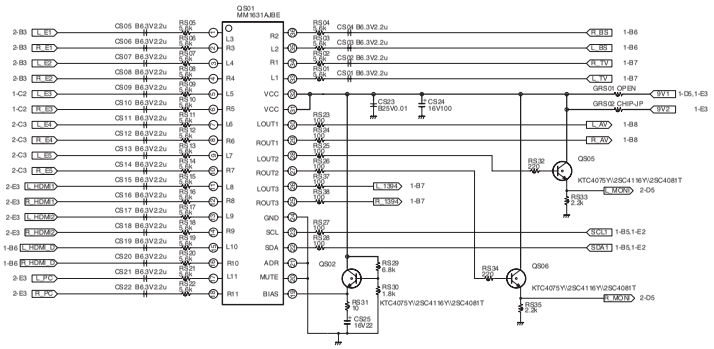

TO SIGNAL BOARD
PJ22A
FFC_0.5mm_50PFHt2A-50S-0.5SV
PJ60A
FFC_0.5mm_50PFHt2A-50S-0.5SV
PB60
10P_2.5mm_1.5A_Beige
to FRONT (EXT-3)
PB39B
1P
TO IF BOARD
(TUNER GND)
PB39A
26PVAP1
to Mother Board
MM1502KNRE
CV200
Q4101
2SC3437Y-L
Q4102
2SC3437Y-L
Q4100
2SC3437Y-L
Q4103
2SC3437Y-L
QV43
KTA2014Y
QV44
KETSU
56/62/72HM195
BACK_AV (CONNECTORS)
SHEET-1/6



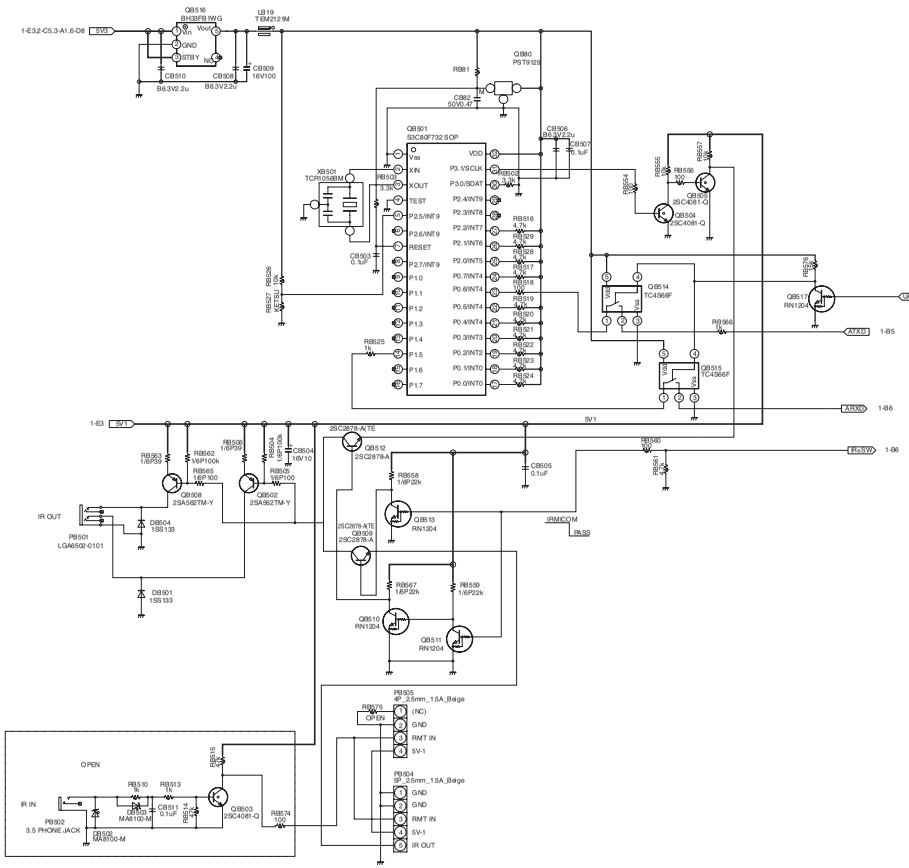
56/62/72HM195
BACK_AV (AV Jacks)
SHEET-2/6



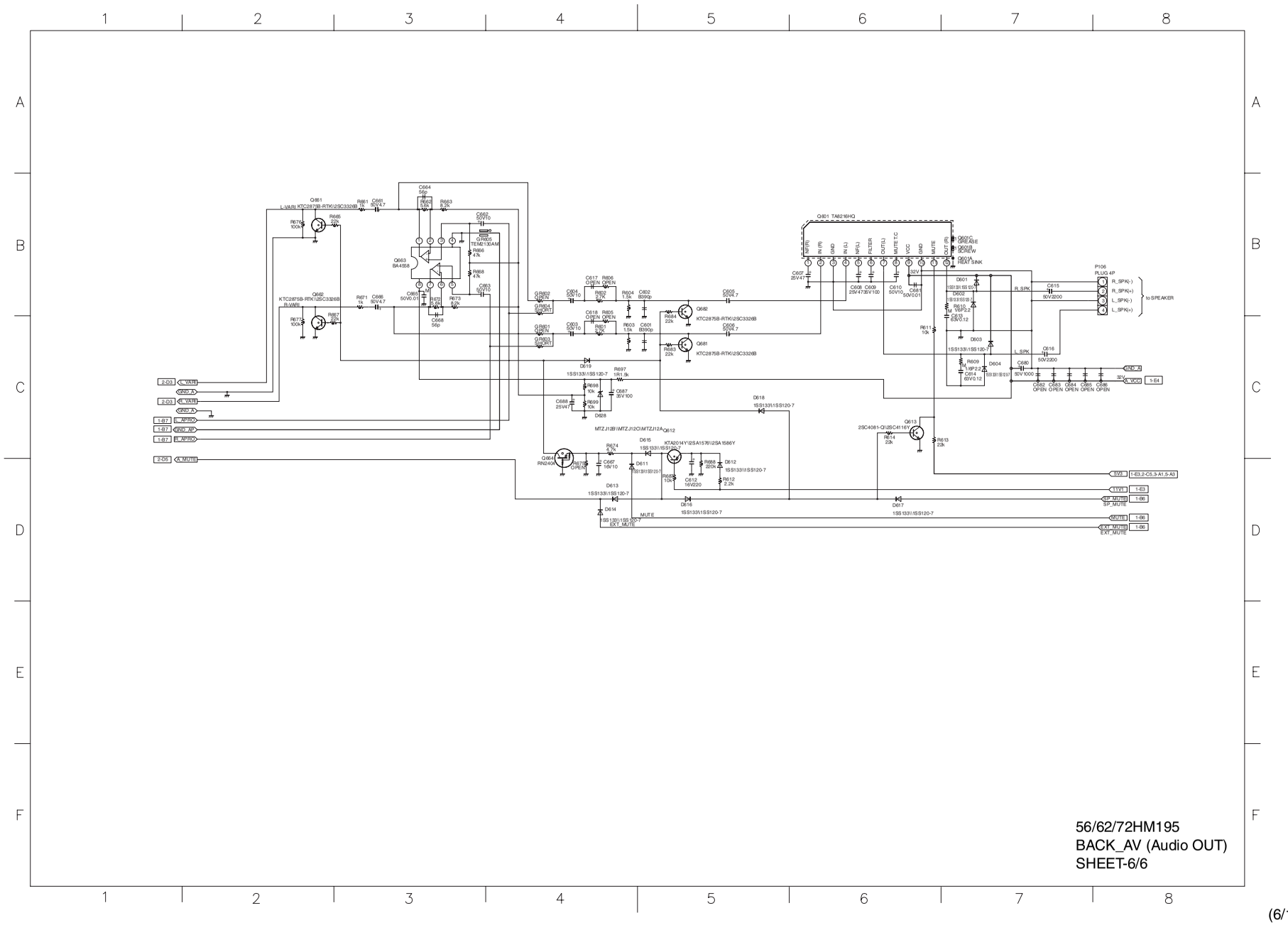
56/62/72HM195
BACK_AV (CS-SW)
SHEET-3/6



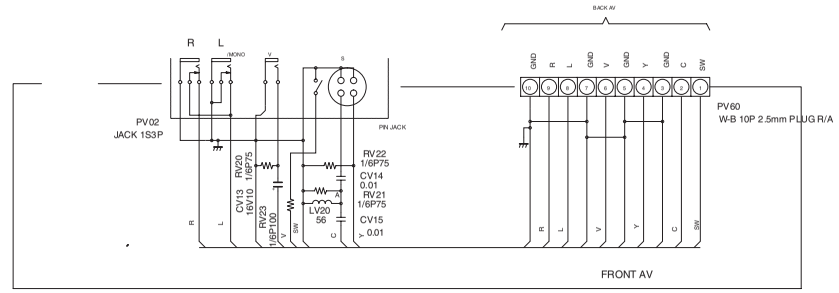
56/62/72HM195
BACK_AV (Audio Select)
SHEET-4/6

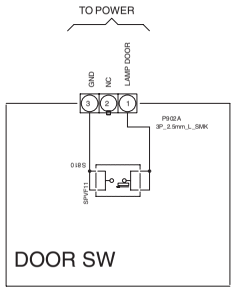


56/62/72HM195
BACK_AV (IR)
SHEET-5/6

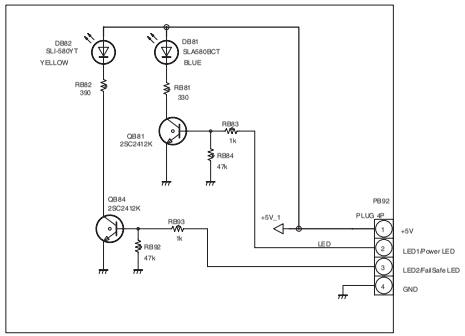


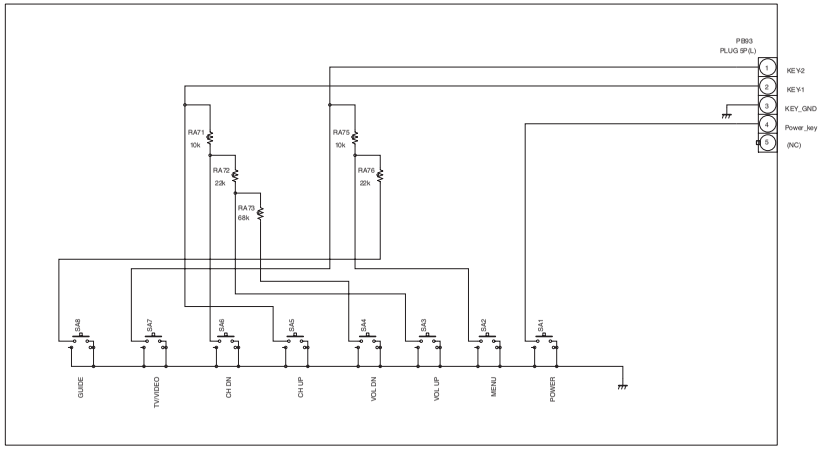
56/62/72HM195
BACK_AV (Audio OUT)
SHEET-6/6



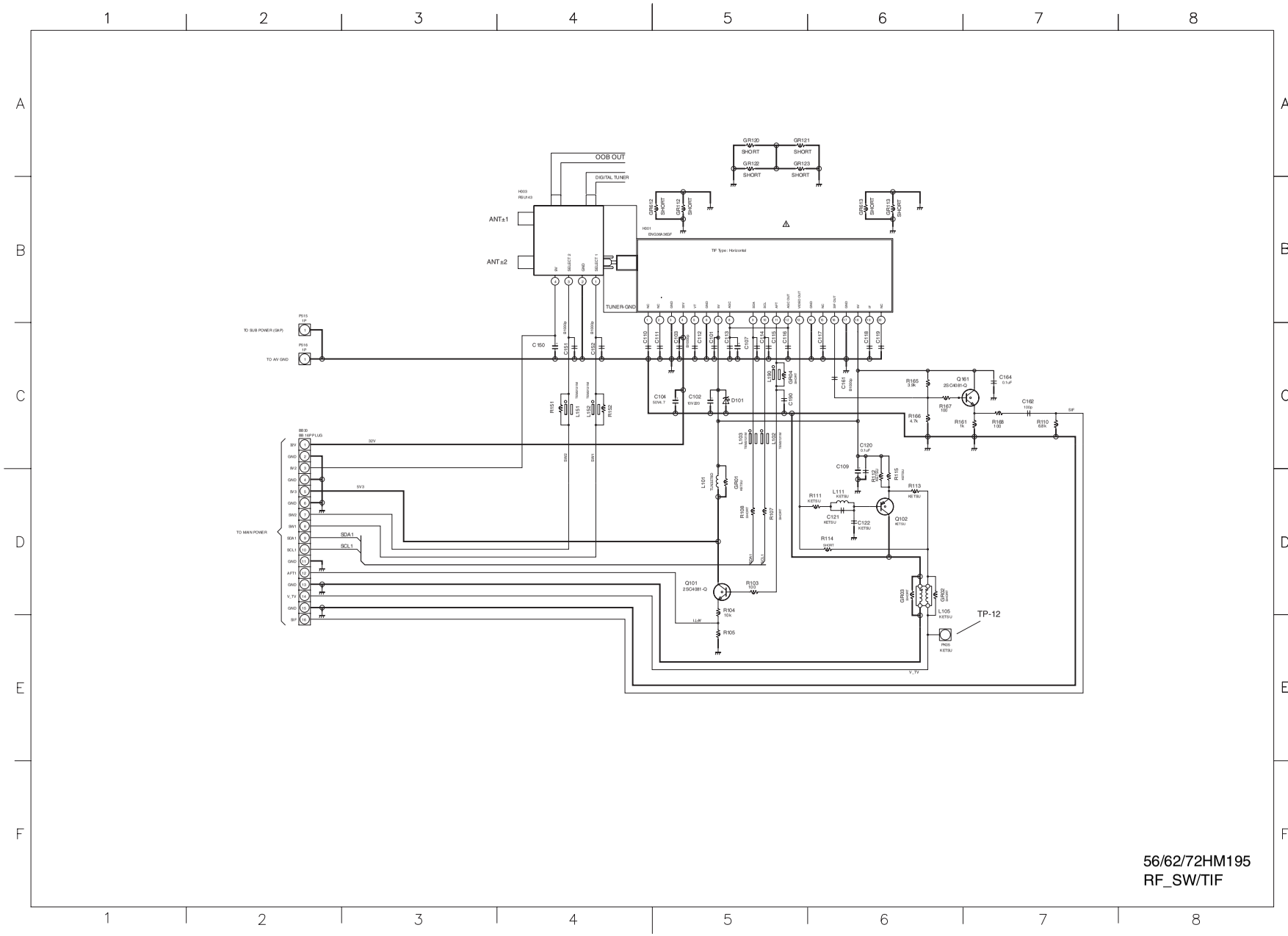


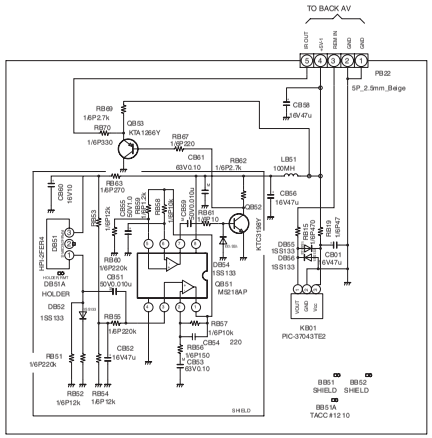
56/62/72HM195
FRONT_AV



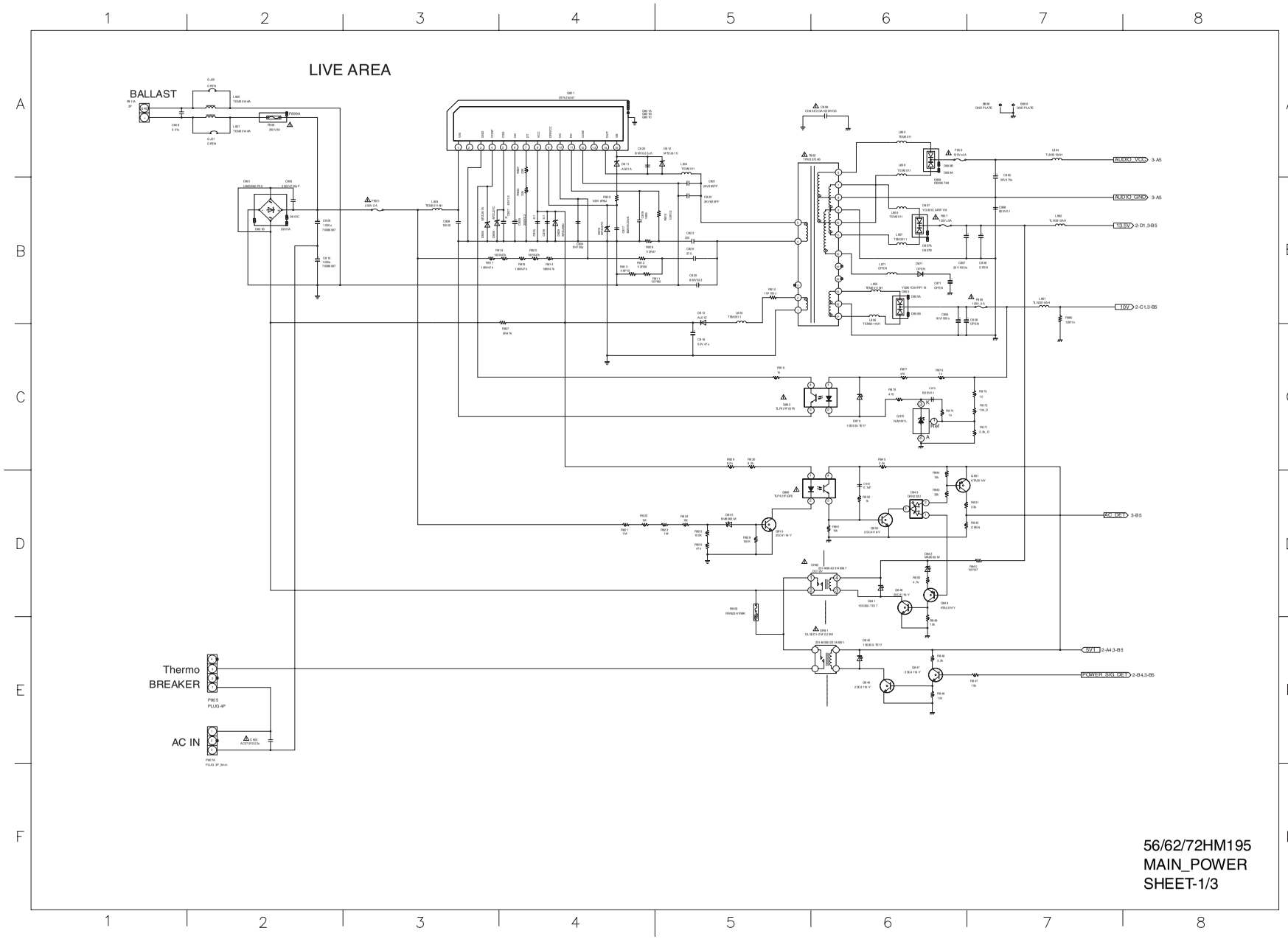


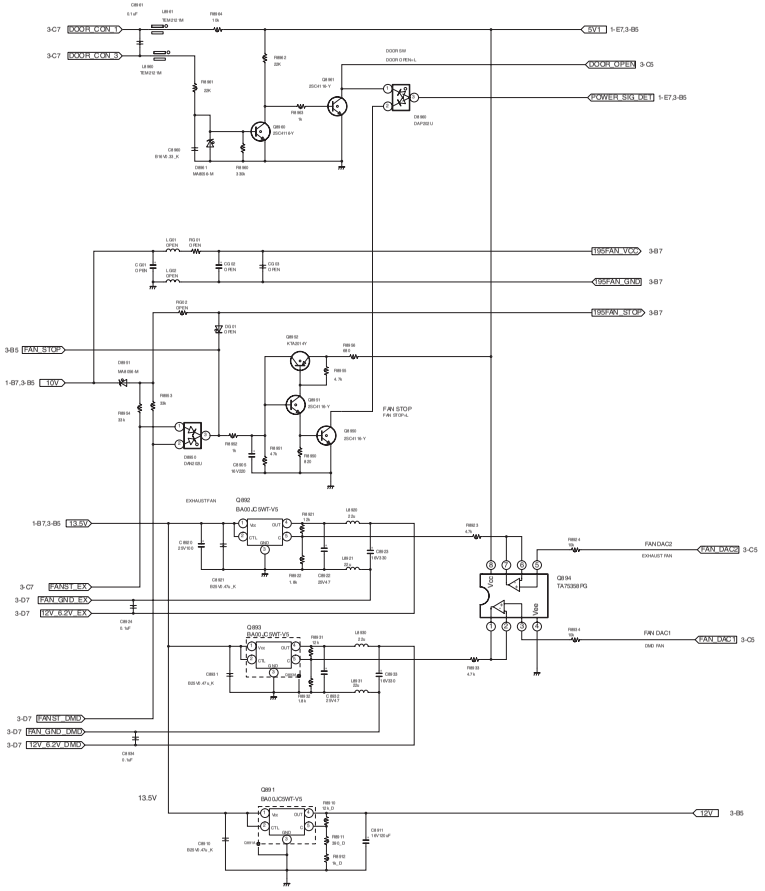
56/62/72HM195
FRONT_KEY (TOUCH_CONTROL_PANEL)

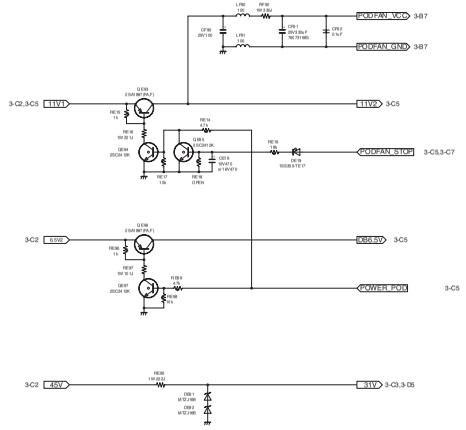

OOB OUT
DIGITAL TUNER
ANT±1
ANT±2
TUNER-GND
TO SUB POWER (SMPS)
TO A/V GND
TO MAIN POWER
SDA1
SCL1
TP-12
56/62/72HM195
RF_SW/TIF



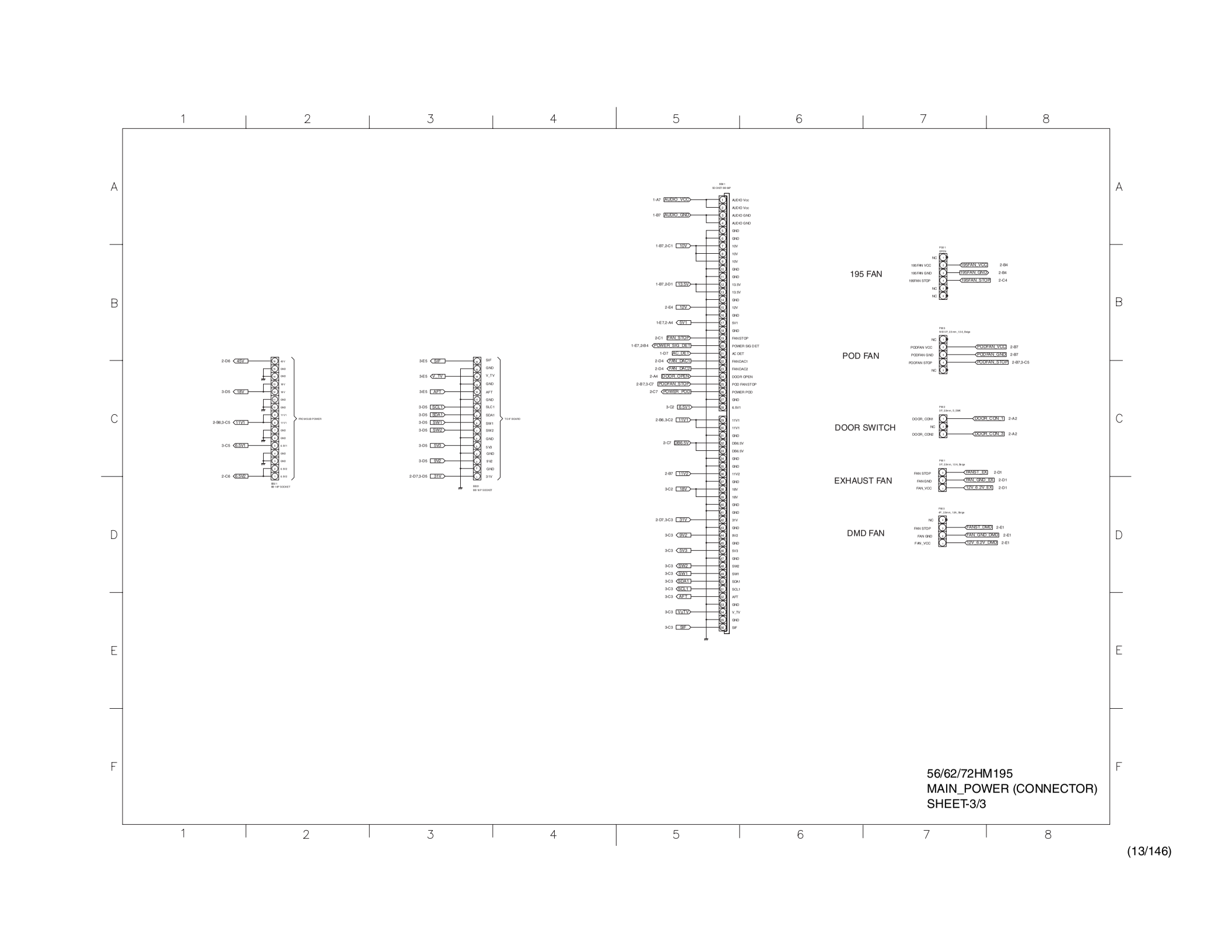
56/62/72HM195
IR_BRASTER

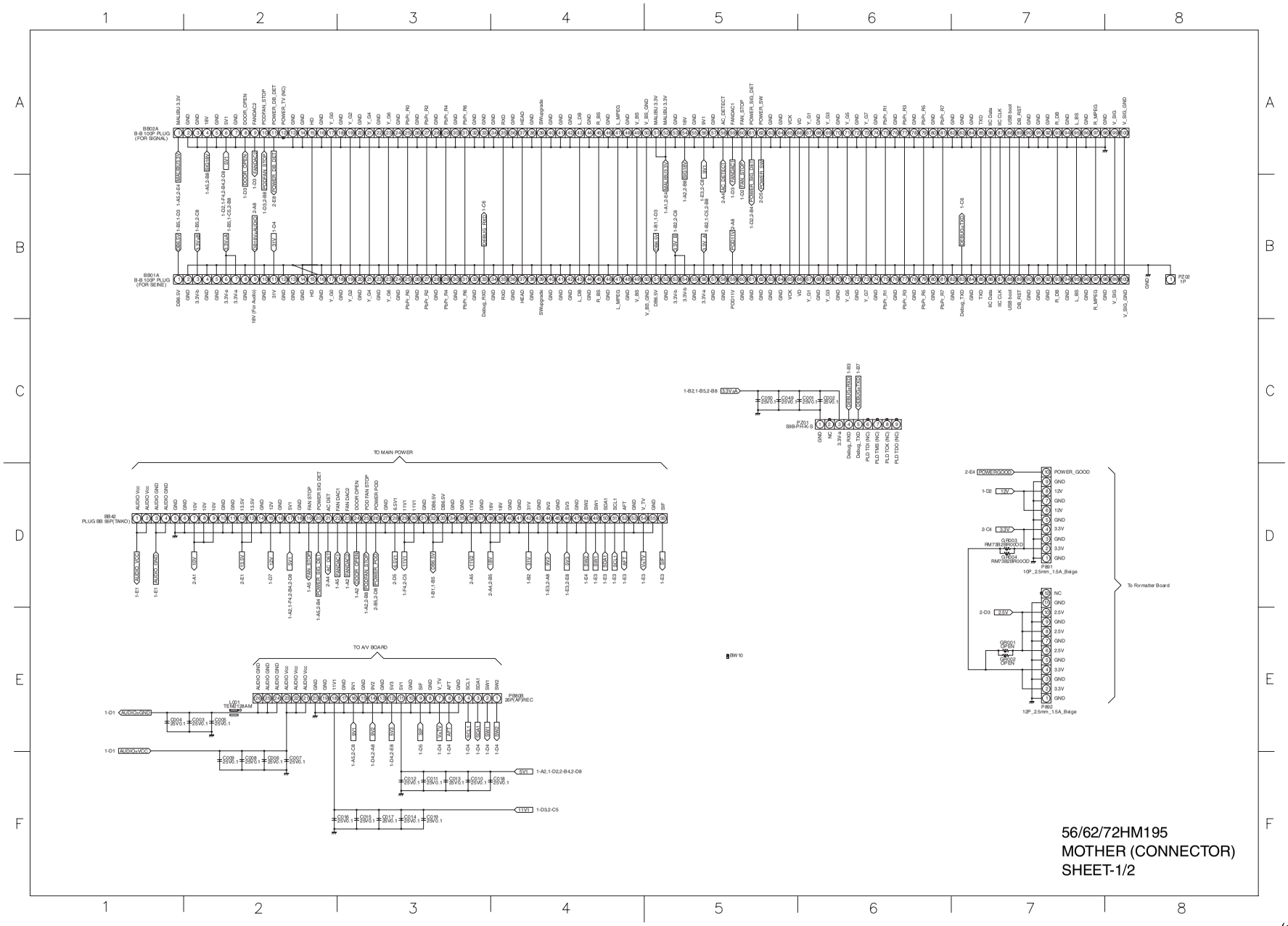

LIVE AREA
BALLAST
Thermo
BREAKER
P80.5
PLUG 4P
AC IN
P80.9A
PLUG 2P_5mm
AUDIO_VCC 3-A5
AUDIO_GND 3-A5
15.6V 2-D1,3-B5
10V 2-C1,3-B5
AC_DET 3-B5
5V 2-A4,3-B5
POWER_SSG_DET 2-B4,3-B5
56/62/72HM195
MAIN_POWER
SHEET-1/3

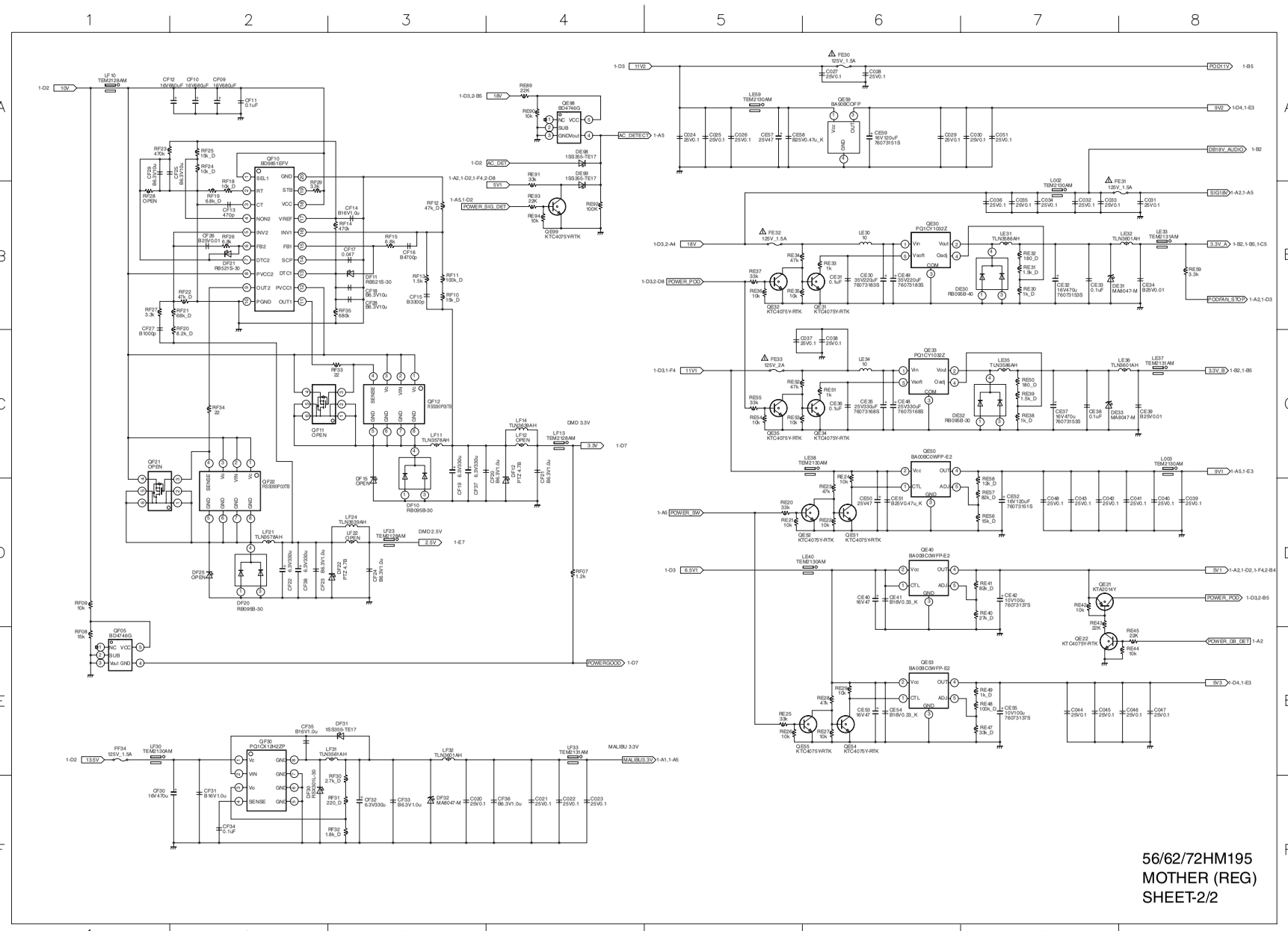


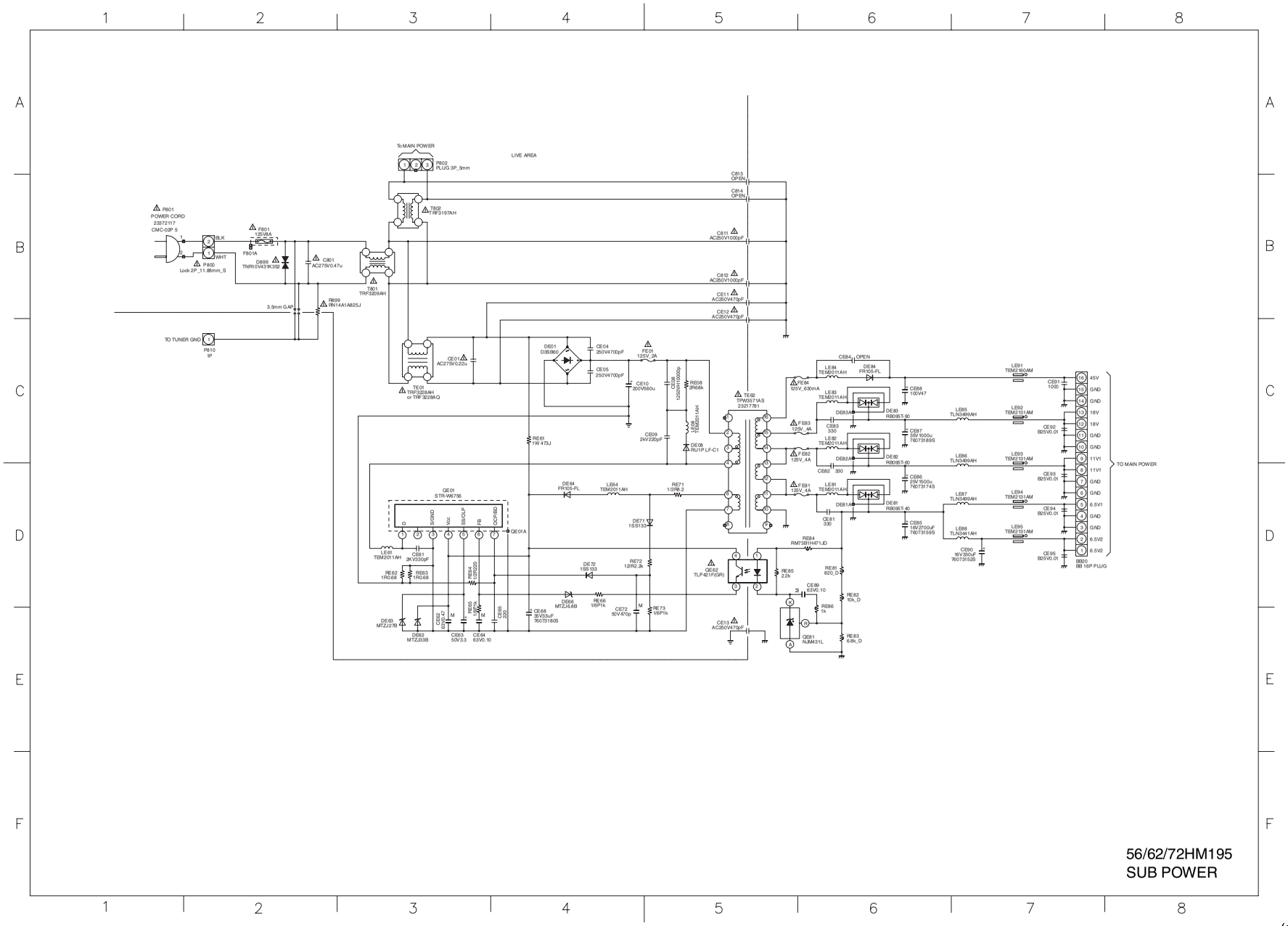


56/62/72HM195
MAIN_POWER (REG & PROTECT & SW)
SHEET-2/3

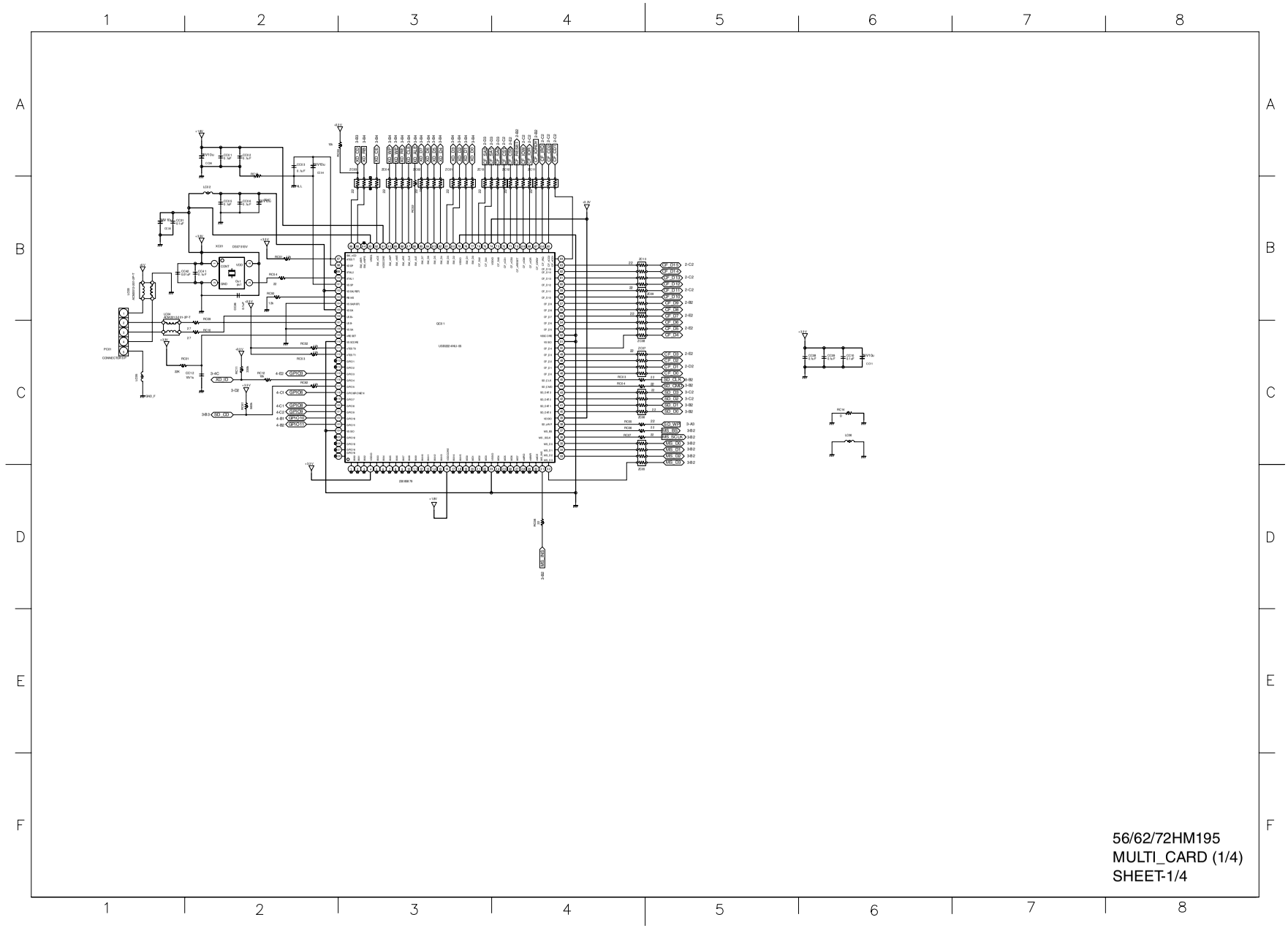

195 FAN
POD FAN
DOOR SWITCH
EXHAUST FAN
DMD FAN
56/62/72HM195
MAIN_POWER (CONNECTOR)
SHEET-3/3


BB02A
B-B 100P PLUG
(FOR SIGNAL)
BB01A
B-B 100P PLUG
(FOR SENE)
TO MAIN POWER
BB42
PLUG BB 56P(TANKO)
TO A/V BOARD
P/BB3
SERVAFINEC
P201
B9B-PHK-S
P891
10P_2.5mm_1.5A_Beige
P892
12P_2.5mm_1.5A_Beige
To Formatter Board
56/62/72HM195
MOTHER (CONNECTOR)
SHEET-1/2


56/62/72HM195
MOTHER (REG)
SHEET-2/2

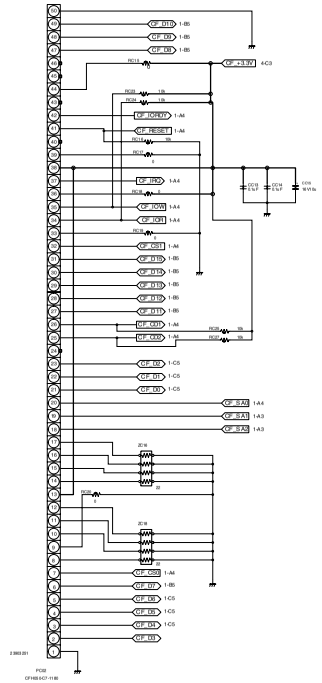


56/62/72HM195
SUB POWER

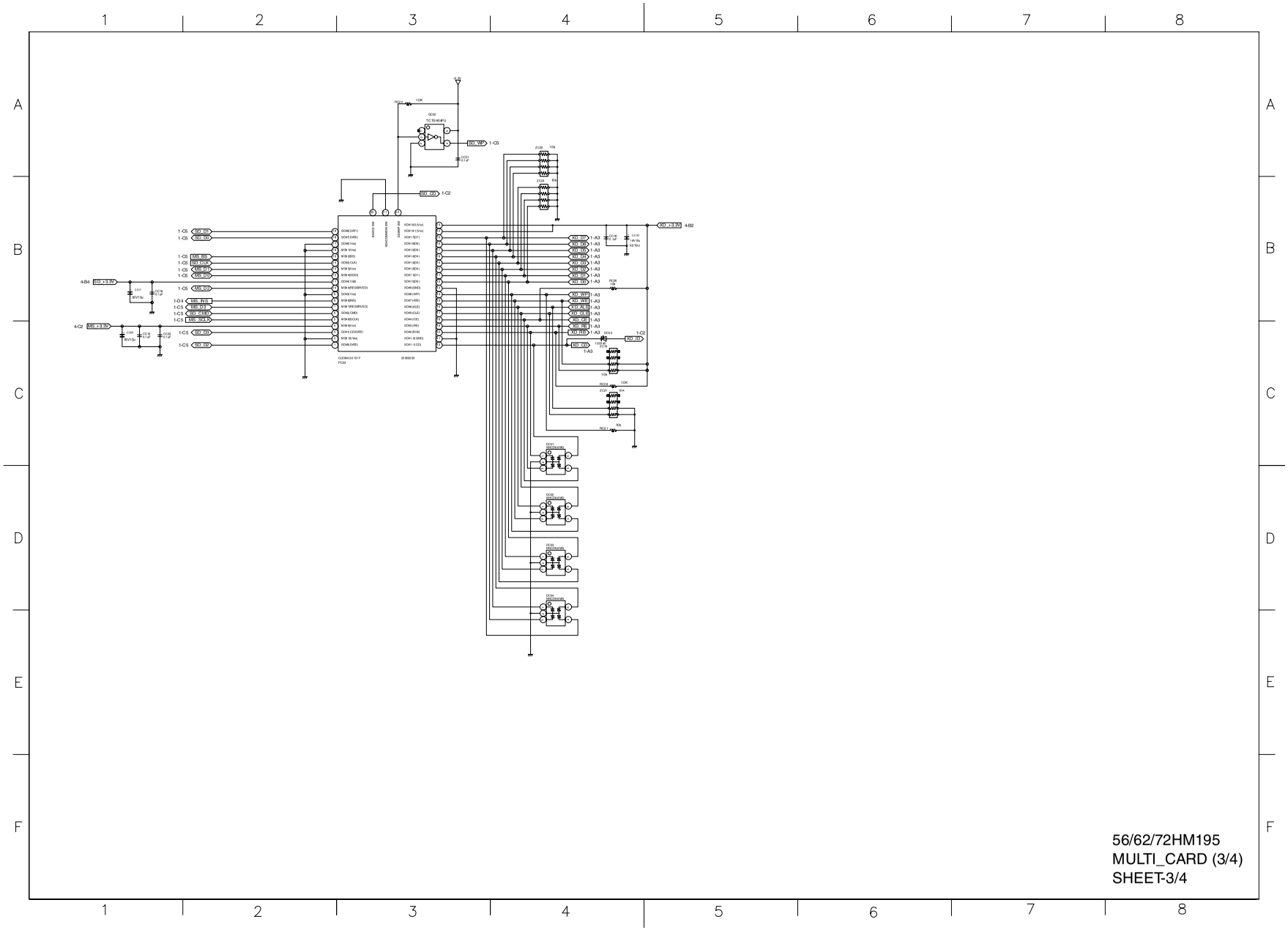


56/62/72HM195
MULTI_CARD (1/4)
SHEET-1/4

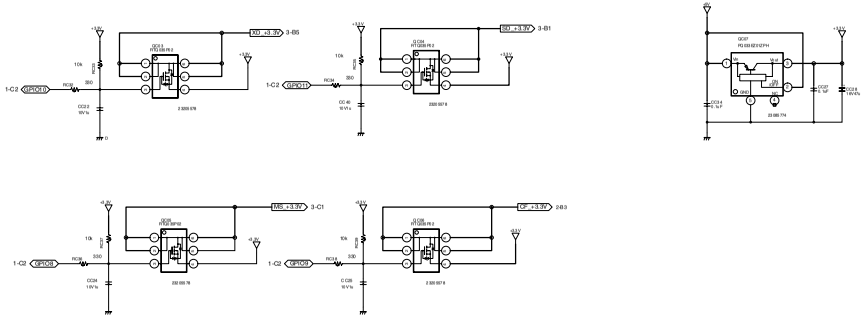
CFH050-C7-1180



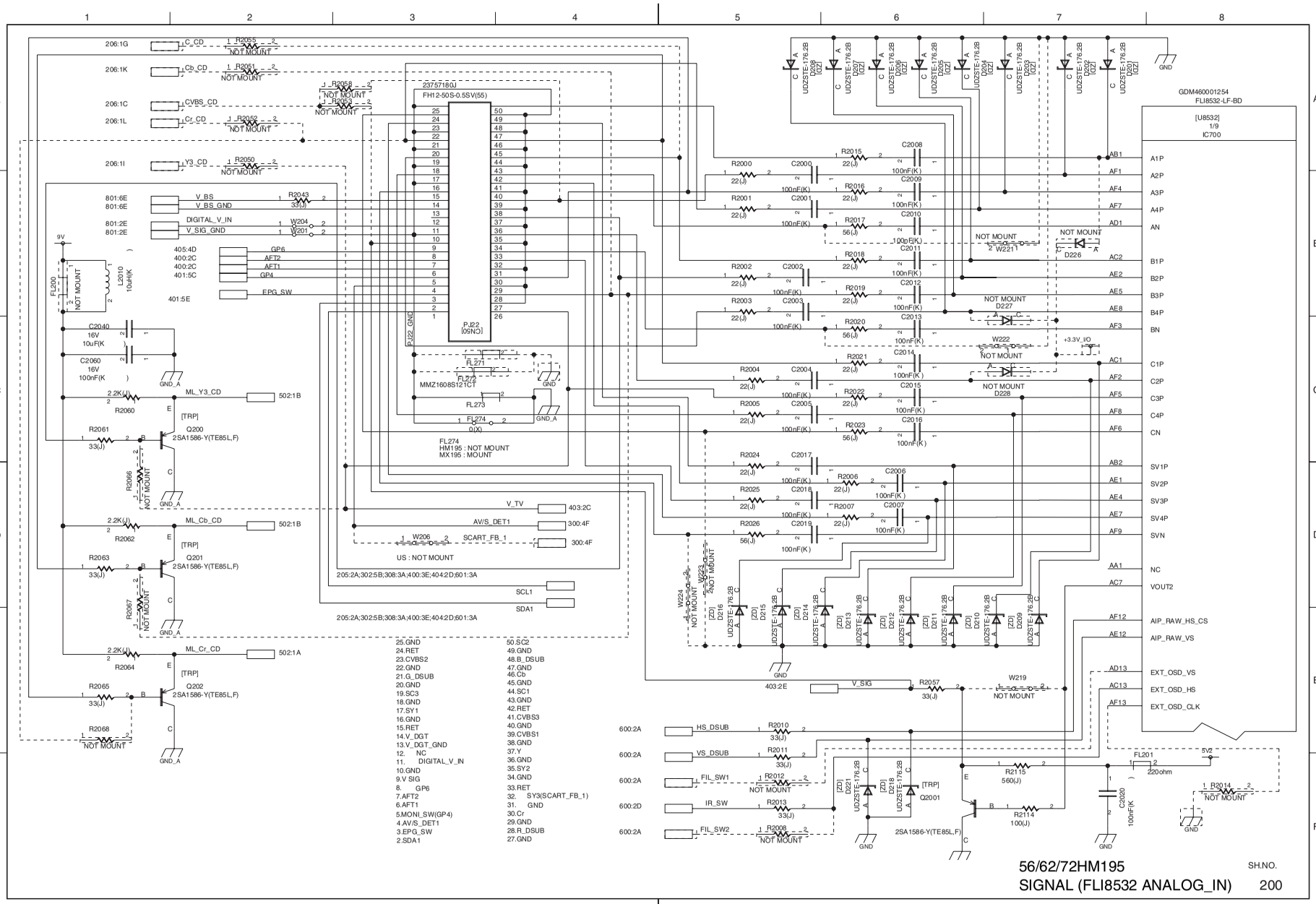
56/62/72HM195
MULTI_CARD (2/4)
SHEET-2/4

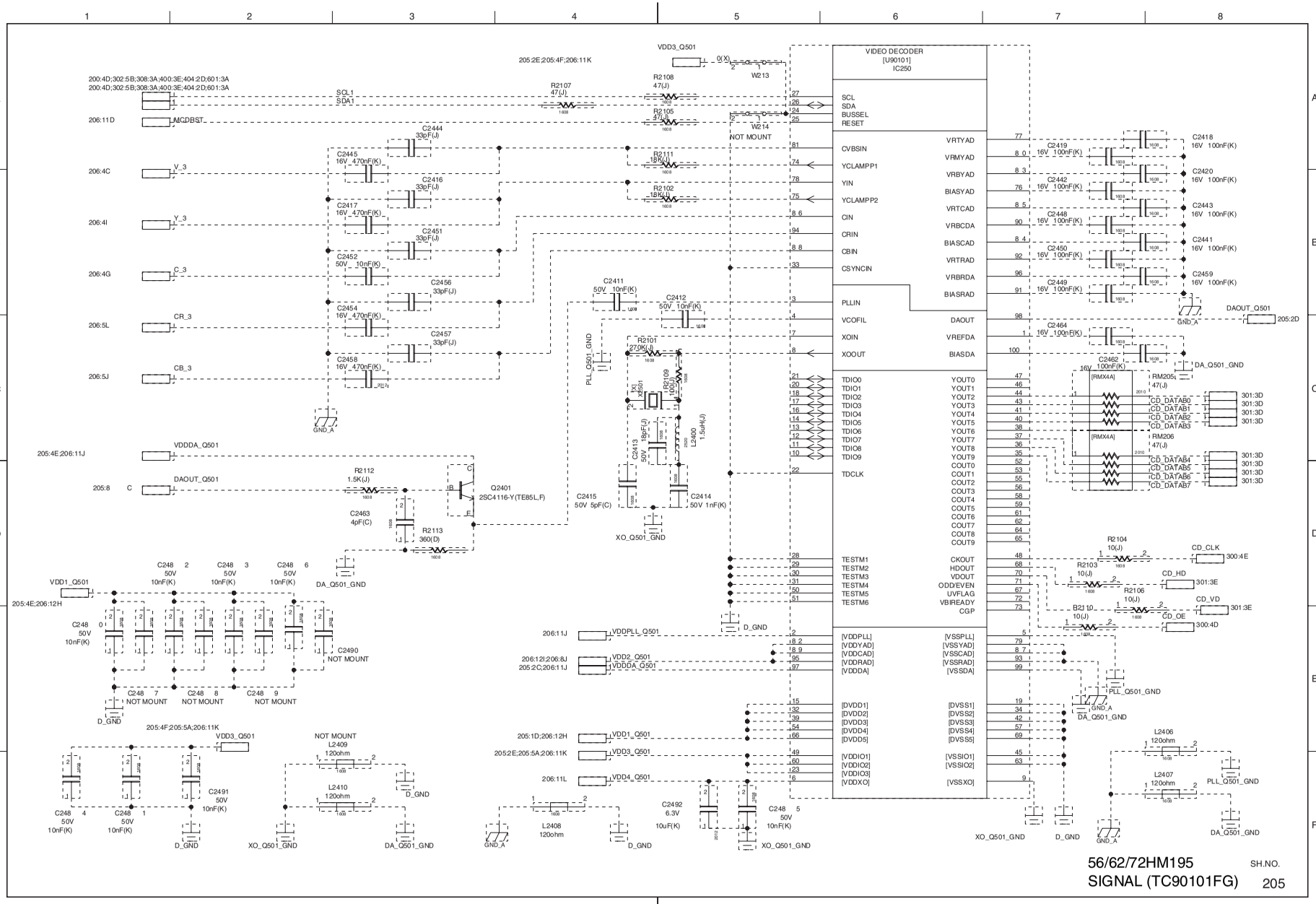


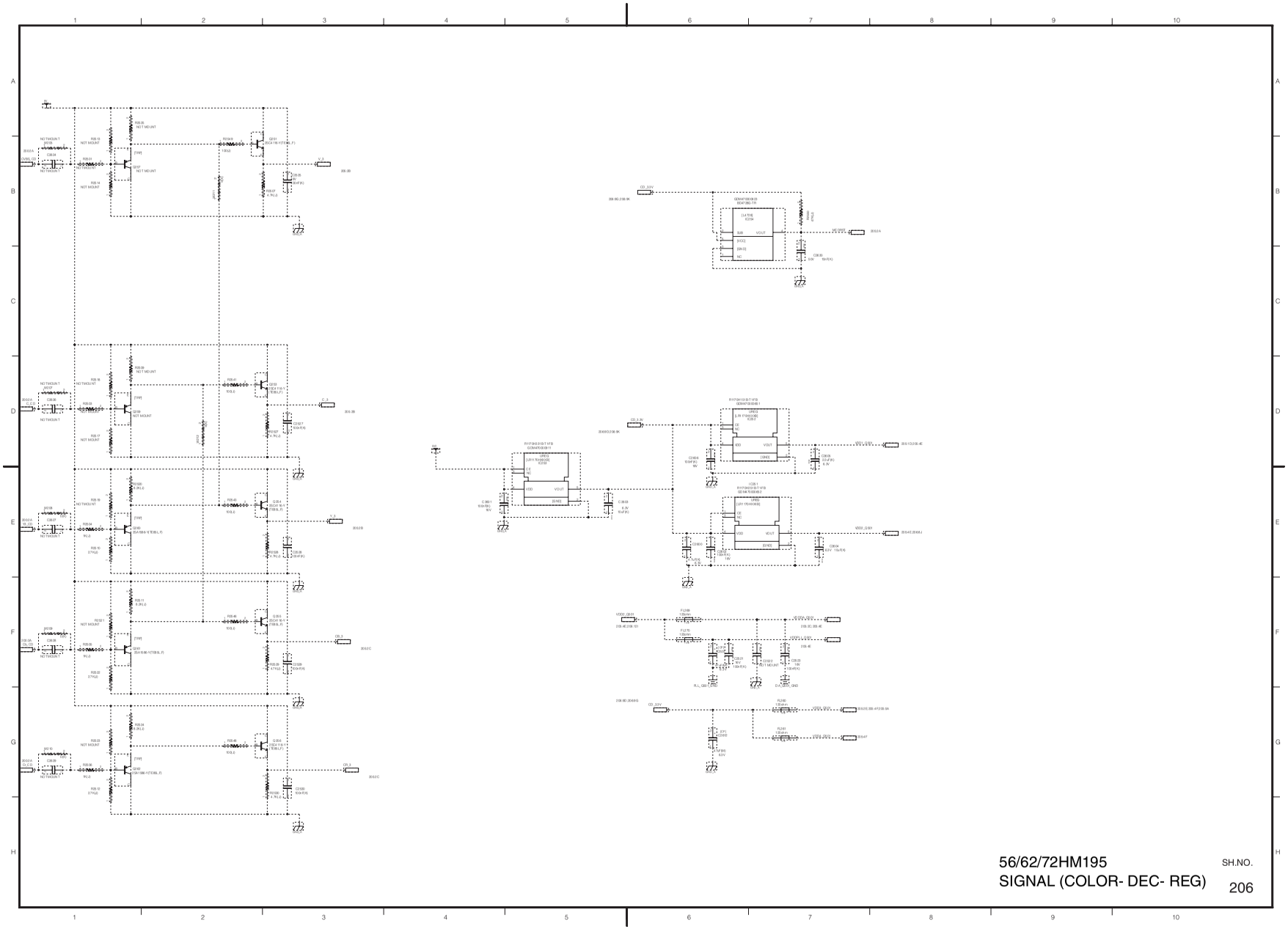
56/62/72HM195
MULTI_CARD (3/4)
SHEET-3/4



56/62/72HM195
MULTI_CARD (4/4)
SHEET-4/4

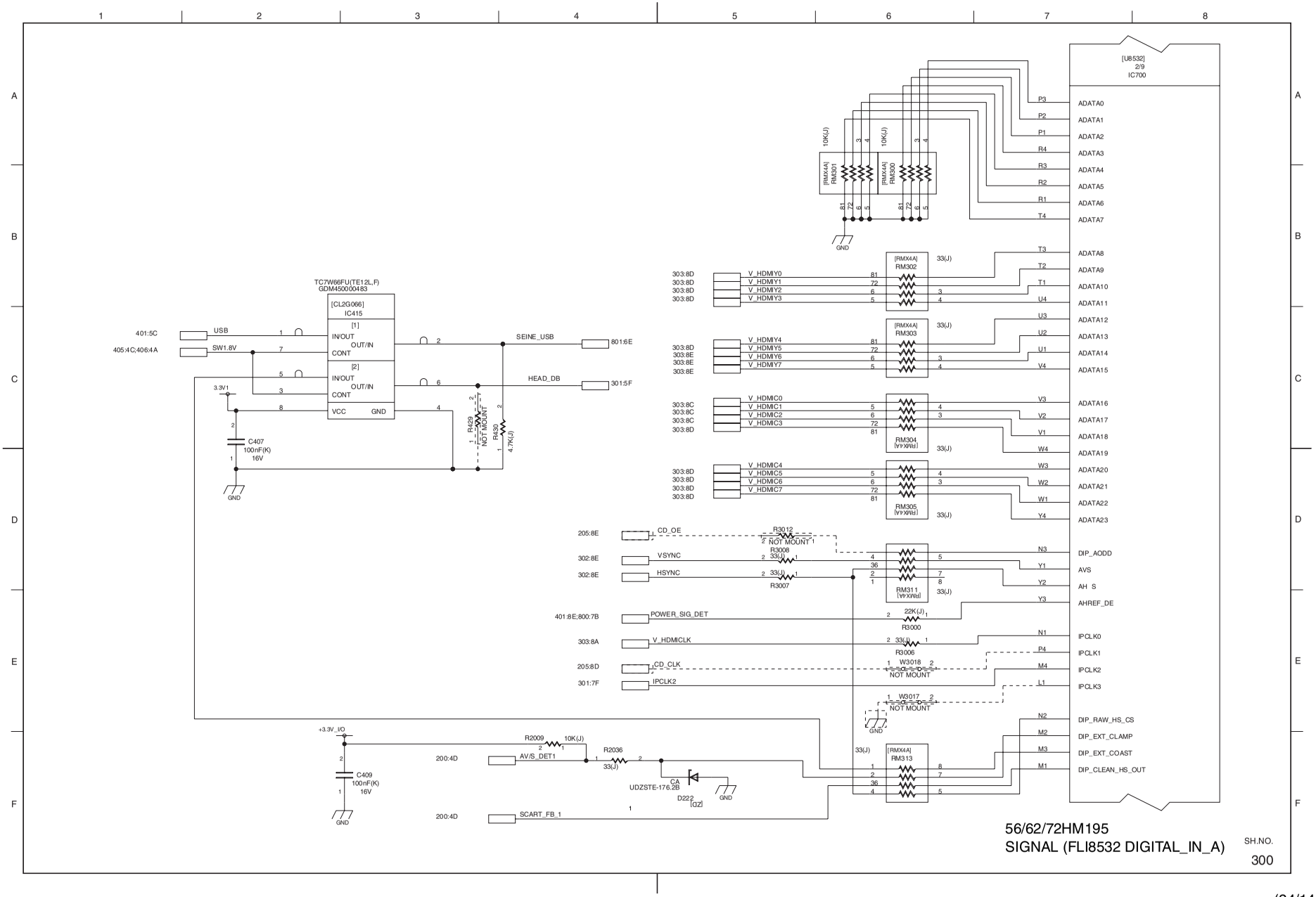

GDM460001254
FLI8532-LF-BD
[U8532]
1/9
IC700
56/62/72HM195
SIGNAL (FLI8532 ANALOG_IN)
SH.NO.
200


VIDEO DECODER
[U90101]
IC250
SCL
SDA
BUSSEL
RESET
CVBSIN
YCLAMPP1
YIN
YCLAMPP2
CIN
CRIN
CBIN
CSYNCIN
PLLIN
VCOFIL
XOIN
XOOUT
TDIO0
TDIO1
TDIO2
TDIO3
TDIO4
TDIO5
TDIO6
TDIO7
TDIO8
TDIO9
TDCLK
TESTM1
TESTM2
TESTM3
TESTM4
TESTM5
TESTM6
[VDDPLL]
[VDDYAD]
[VDDCAD]
[VDDRAD]
[VDDDA]
[VDVD1]
[VDVD2]
[VDVD3]
[VDVD4]
[VDVD5]
[VDDIO1]
[VDDIO2]
[VDDIO3]
[VDDXO]
VRTYAD
VRMYAD
VRBYAD
BIASYAD
VRTCAD
VRBCDA
BIASCAD
VRTRAD
VRBRDA
BIASRAD
DAOUT
VREFDA
BIASDA
YOUT0
YOUT1
YOUT2
YOUT3
YOUT4
YOUT5
YOUT6
YOUT7
YOUT8
YOUT9
COUT0
COUT1
COUT2
COUT3
COUT4
COUT5
COUT6
COUT7
COUT8
COUT9
CKOUT
HDOUT
VDOUT
ODD/EVEN
UVFLAG
VBIREADY
CGP
[VSSPLL]
[VSSYAD]
[VSSCAD]
[VSSRAD]
[VSSDA]
[VSVS1]
[VSVS2]
[VSVS3]
[VSVS4]
[VSVS5]
[VSSIO1]
[VSSIO2]
[VSSXO]
SCL1
SDA1
MCDBST
V_3
Y_3
C_3
CR_3
CB_3
VDDDA_Q501
DAOUT_Q501
VDD1_Q501
VDDPLL_Q501
VDD2_Q501
VDDDA_Q501
VDD3_Q501
VDD4_Q501
W213
W214
NOT MOUNT
R2107 47(J)
R2108 47(J)
R2105 47(J)
R2111 18K(J)
R2102 18K(J)
R2101 270K(J)
R2109 100K(J)
R2112 1.5K(J)
R2113 360(D)
C2444 33pF(J)
C2445 16V 470nF(K)
C2416 33pF(J)
C2417 16V 470nF(K)
C2451 33pF(J)
C2452 50V 10nF(K)
C2456 33pF(J)
C2454 16V 470nF(K)
C2457 33pF(J)
C2458 16V 470nF(K)
C2411 50V 10nF(K)
C2412 50V 10nF(K)
C2413 50V 18pF(J)
C2415 50V 5pF(C)
C2414 50V 1nF(K)
C2463 4pF(C)
L2400 1.5uH(J)
X2501
Q2401 2SC4116-Y(TE85L,F)
C2490 NOT MOUNT
C2491 50V 10nF(K)
C2492 6.3V 10uF(K)
L2409 120ohm
L2410 120ohm
L2408 120ohm
L2406 120ohm
L2407 120ohm
C2418 16V 100nF(K)
C2419 16V 100nF(K)
C2420 16V 100nF(K)
C2442 16V 100nF(K)
C2443 16V 100nF(K)
C2448 16V 100nF(K)
C2441 16V 100nF(K)
C2450 16V 100nF(K)
C2459 16V 100nF(K)
C2449 16V 100nF(K)
C2464 16V 100nF(K)
C2462 16V 100nF(K)
RM205 47(J)
RM206 47(J)
CD_DATAB0
CD_DATAB1
CD_DATAB2
CD_DATAB3
CD_DATAB4
CD_DATAB5
CD_DATAB6
CD_DATAB7
R2104 10(J)
R2103 10(J)
R2106 10(J)
R2110 10(J)
CD_CLK
CD_HD
CD_VD
CD_OE
PLL_Q501_GND
DA_Q501_GND
XO_Q501_GND
D_GND
GND_A
DAOUT_Q501
205:2D
205:4E;206:11J
205:8 C
206:4C
206:4I
206:5J
206:5L
206:4G
206:11D
200:4D;302:5B;308:3A;400:3E;404:2D;601:3A
205:2E;205:4F;206:11K
205:4F;205:5A;206:11K
205:1D;206:12H
205:2E;205:5A;206:11K
206:11L
206:12I;206:8J
205:2C;206:11J
205:4E;206:12H
300:4E
300:4D
301:3E
301:3D
56/62/72HM195
SIGNAL (TC90101FG)
SH.NO.
205



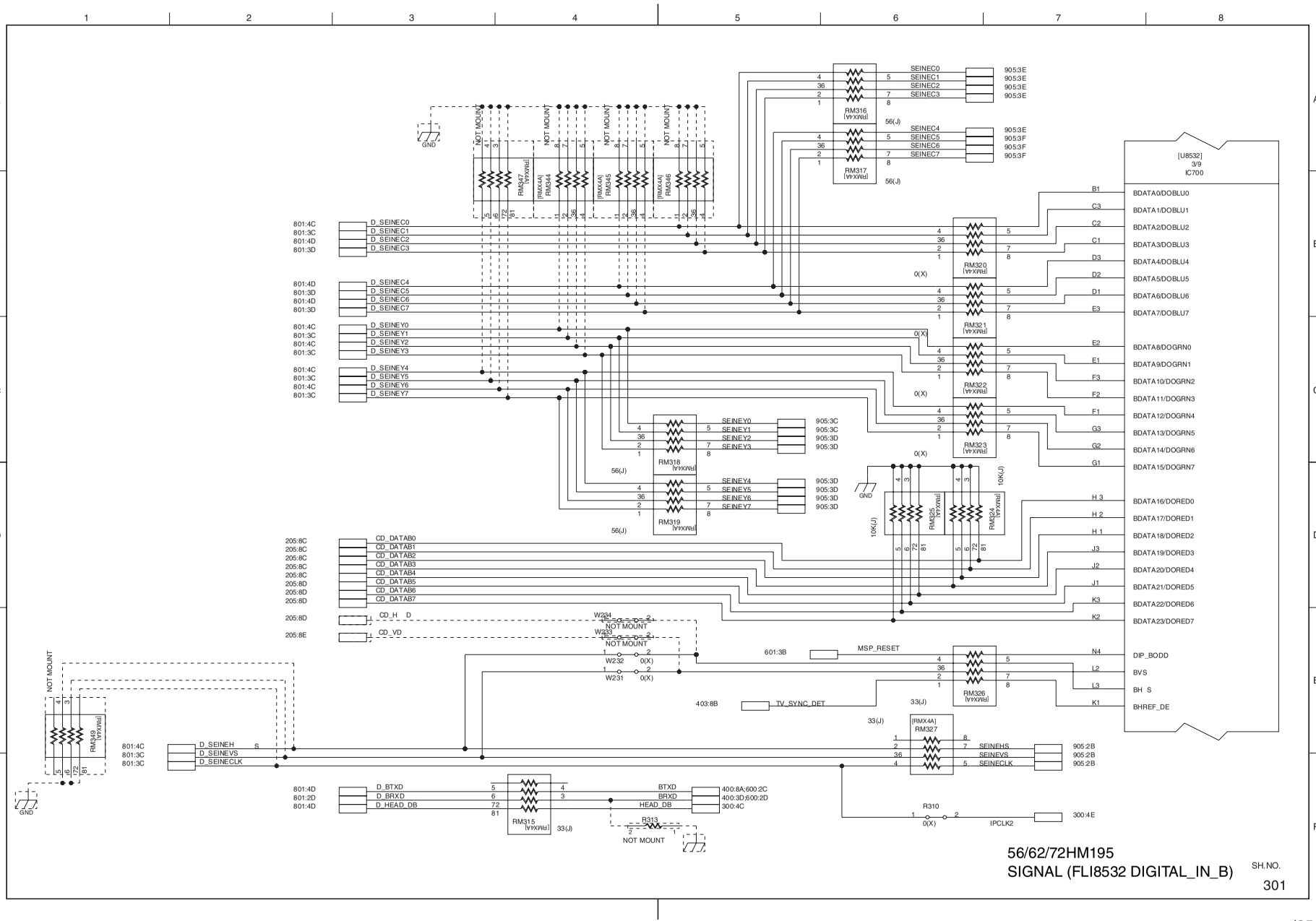
56/62/72HM195
SIGNAL (COLOR- DEC- REG)

SH.NO.
206



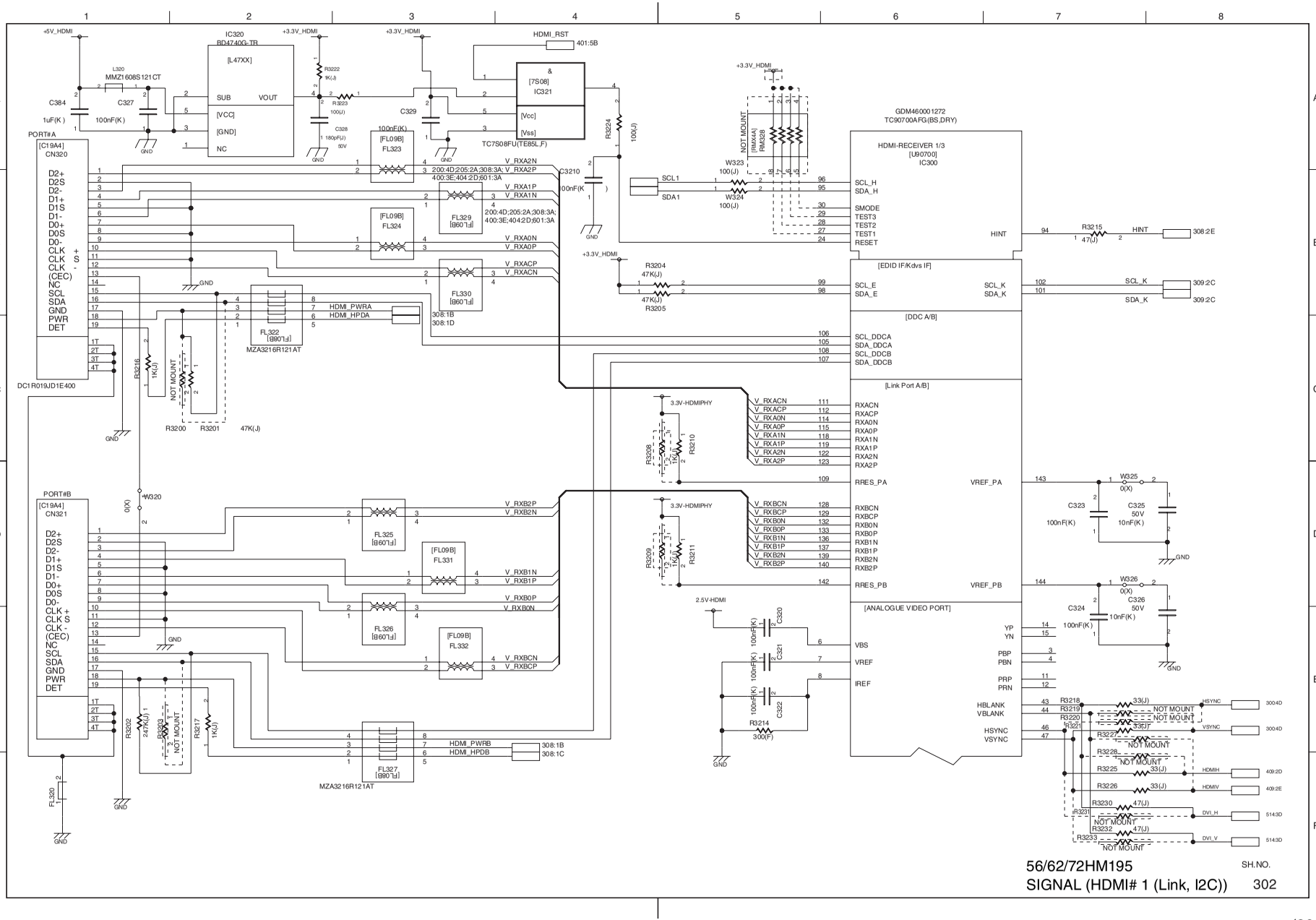
56/62/72HM195
SIGNAL (FLI8532 DIGITAL_IN_A)

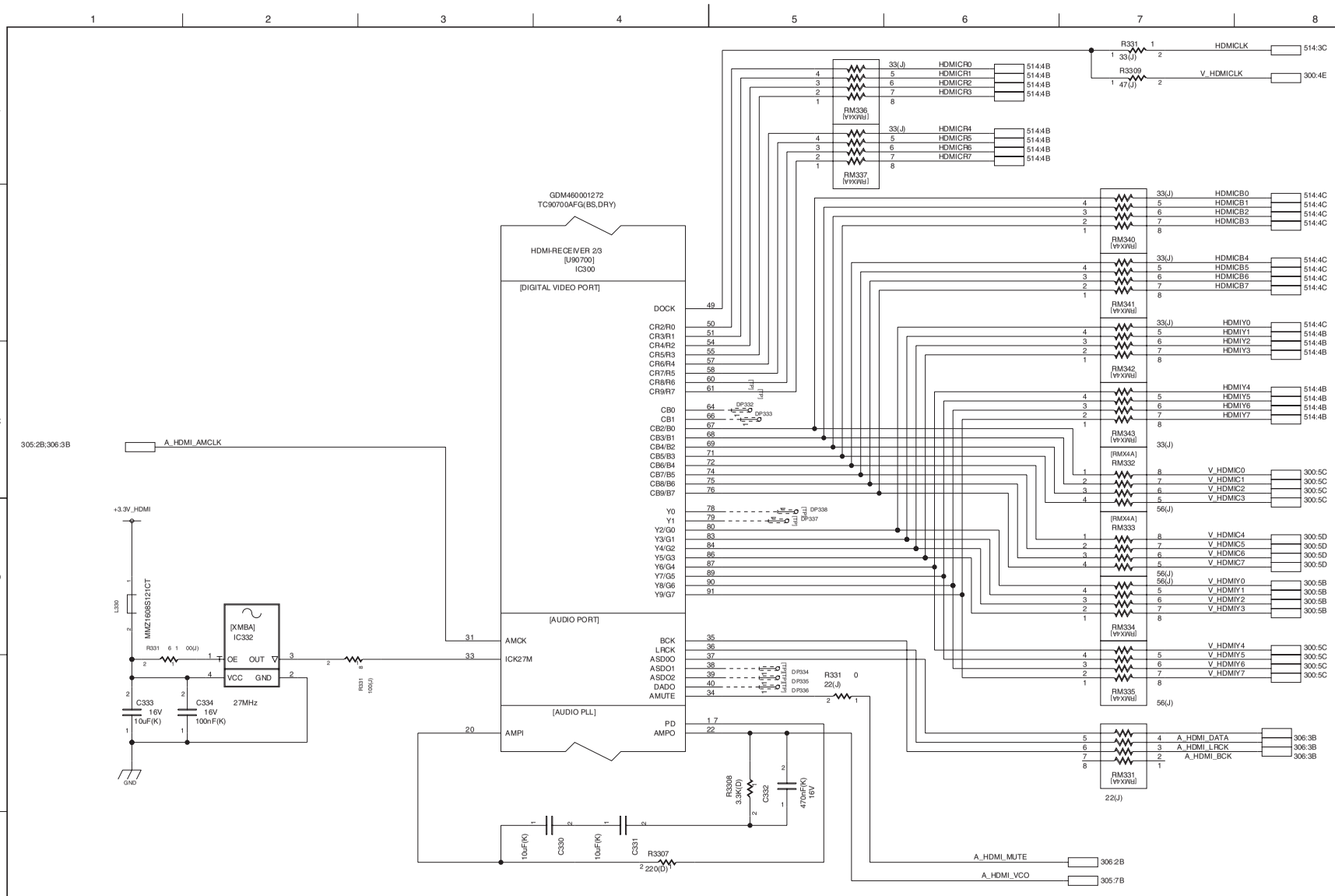
SH.NO.
300



56/62/72HM195
SIGNAL (FLI8532 DIGITAL_IN_B)

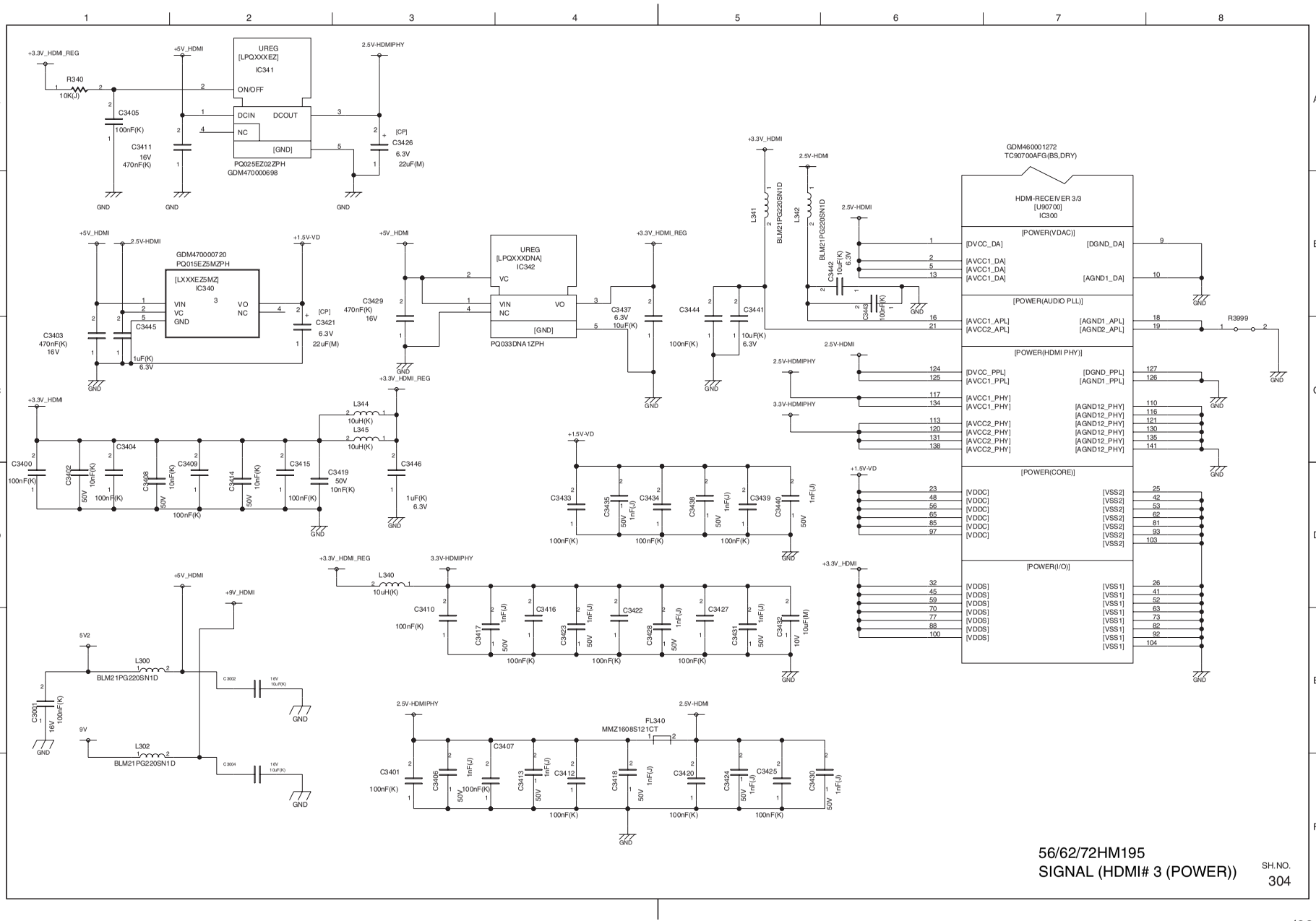
SH.NO.
301


GDM460001272
TC90700AFG(BS,DRY)
HDMI-RECEIVER 1/3
[U90700]
IC300
[EDID IF/Kdvs IF]
[DDC A/B]
[Link Port A/B]
[ANALOGUE VIDEO PORT]
IC320
BD4740G-TR
IC321
TC7S08FU(TE85L,F)
PORT#A
PORT#B
CN320
CN321
DC1R019JD1E400
MZA3216R121AT
HDMI_RST
401:5B
HINT
308:2E
SCL_K
SDA_K
309:2C
HDMI_PWRA
HDMI_HPDA
308:1B
308:1D
HDMI_PWRB
HDMI_HPDB
308:1C
HSYNC
VSYNC
HDMIH
HDMIV
DVI_H
DVI_V
3004:D
409:2D
409:2E
514:3D
56/62/72HM195
SIGNAL (HDMI# 1 (Link, I2C))
SH.NO.
302



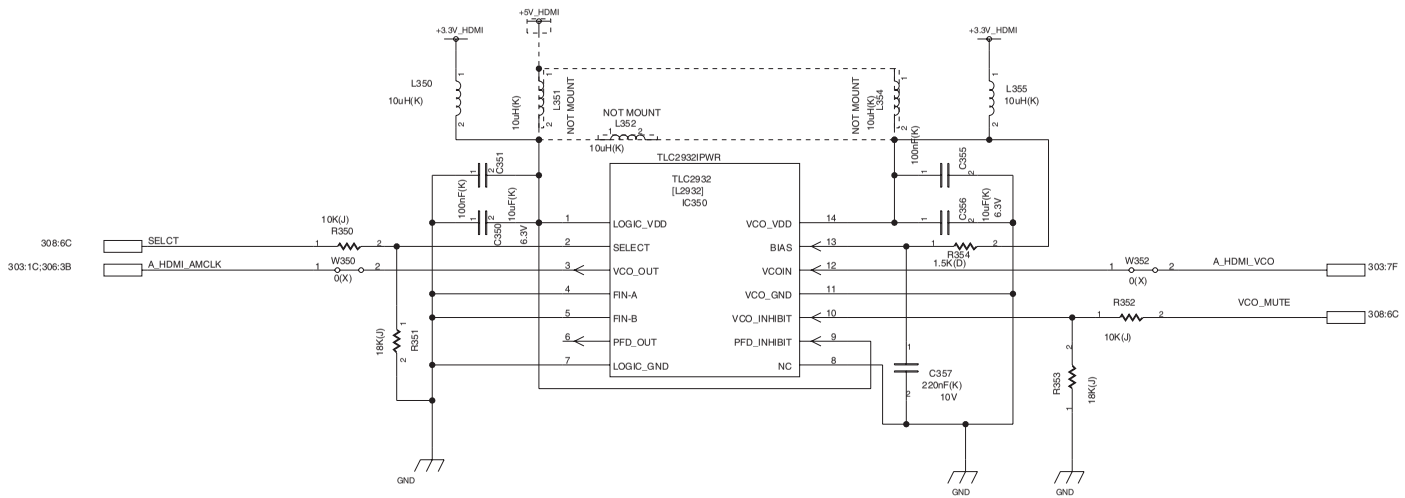
56/62/72HM195
SIGNAL (HDMI# 2 (Video/ Audio))

SH.NO.
303



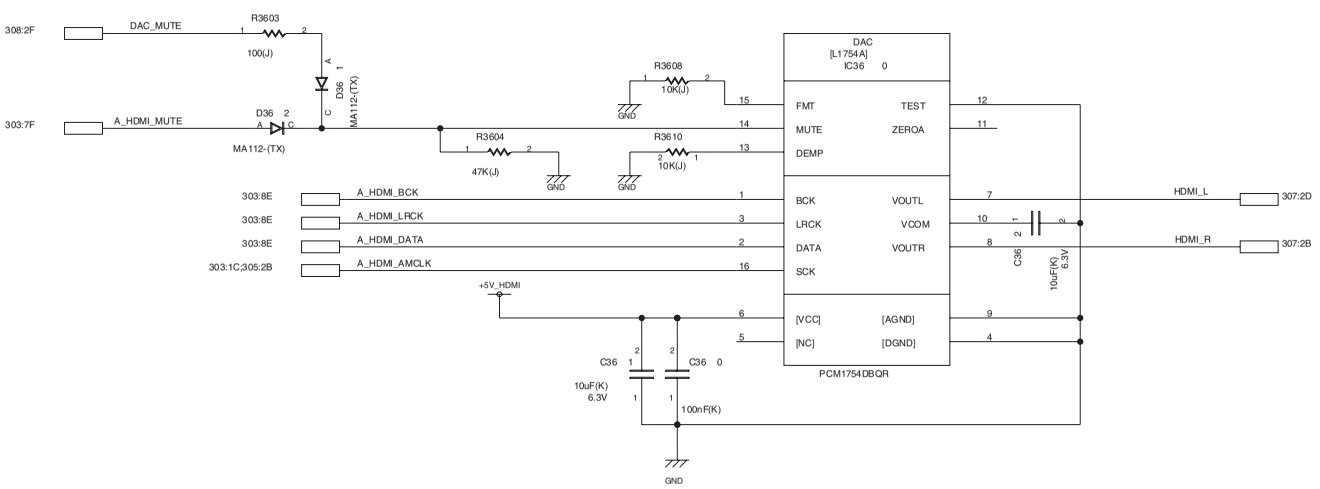
56/62/72HM195
SIGNAL (HDMI# 3 (POWER))

SH.NO.
304



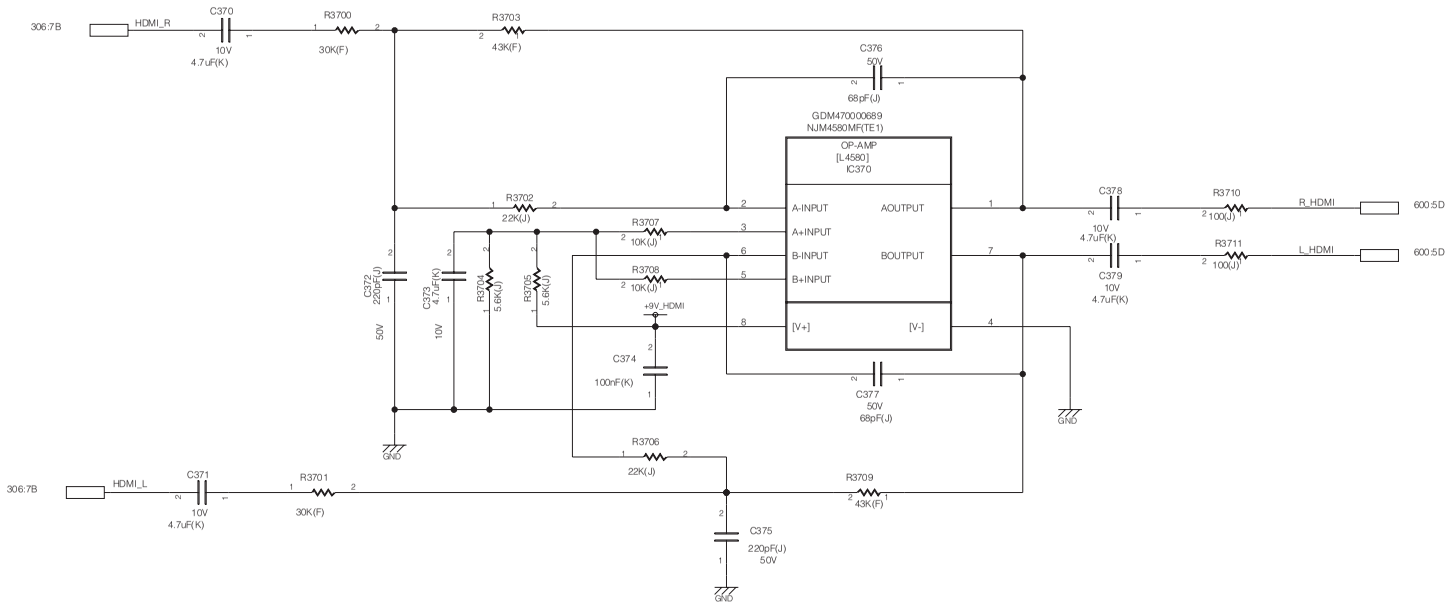
56/62/72HM195
SIGNAL (HDMI AUDIO_ PLL)

SH.NO.
305



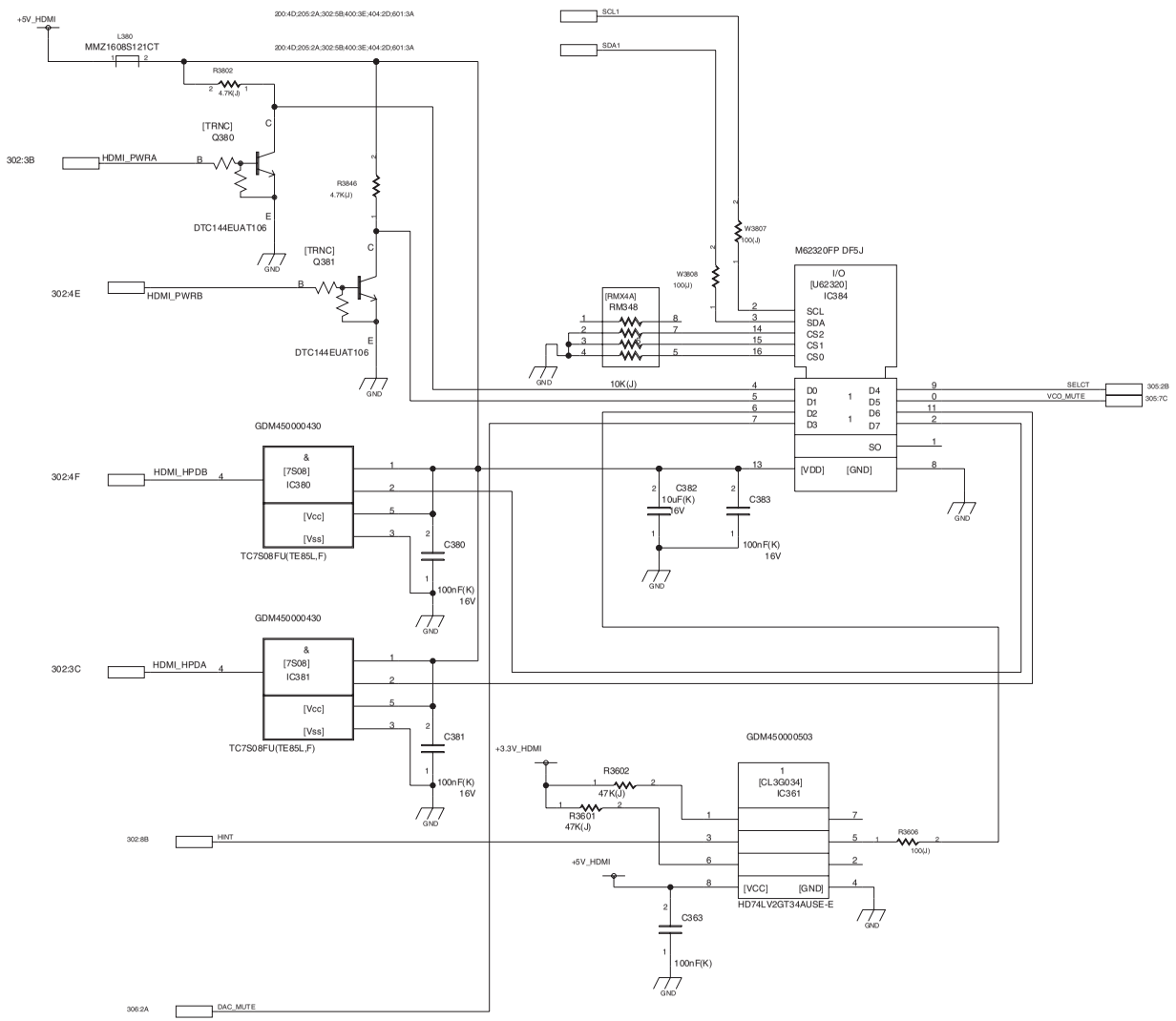
56/62/72HM195
SIGNAL (HDMI AUDIO_ DAC)

SH.NO.
306



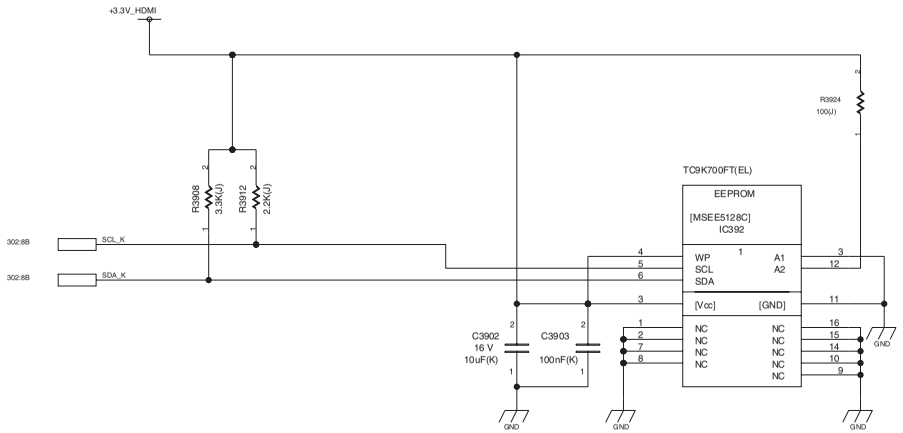
56/62/72HM195
SIGNAL (HDMI AUDIO_ OUT)

SH.NO.
307



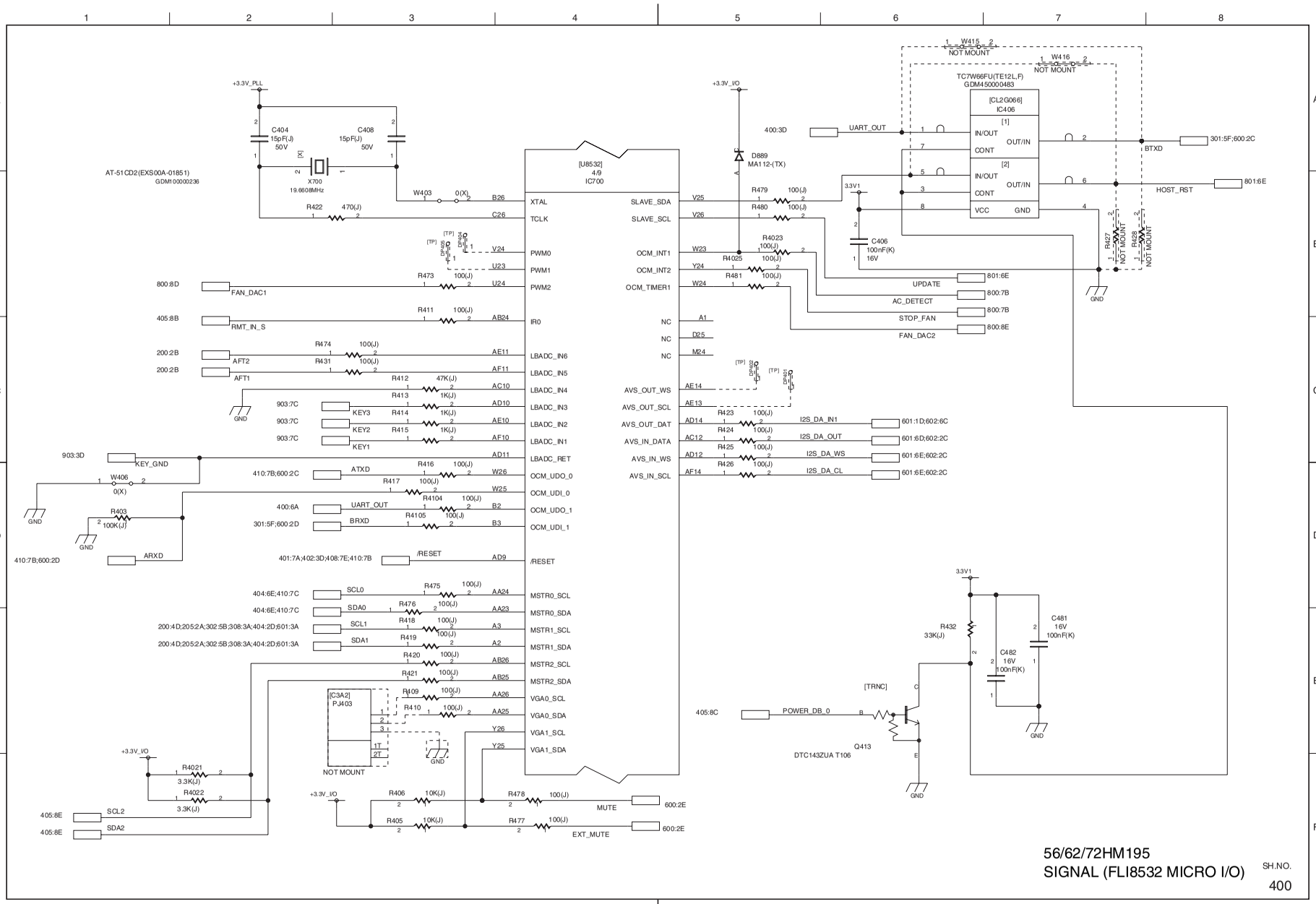
56/62/72HM195
SIGNAL (HDMI CONTROLLER)

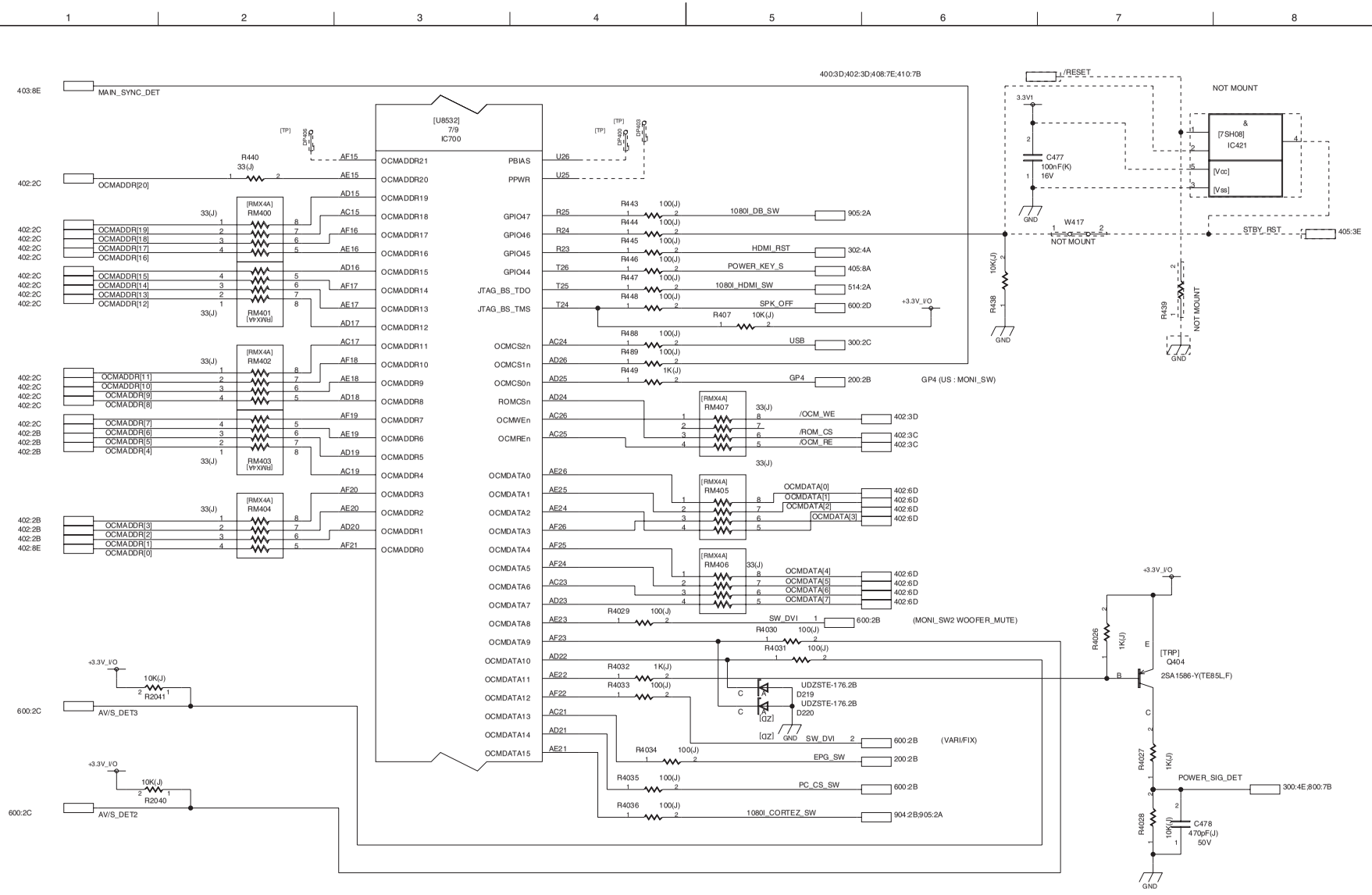
SH.NO.
308



56/62/72HM195
SIGNAL (HDMI EEPROM2)

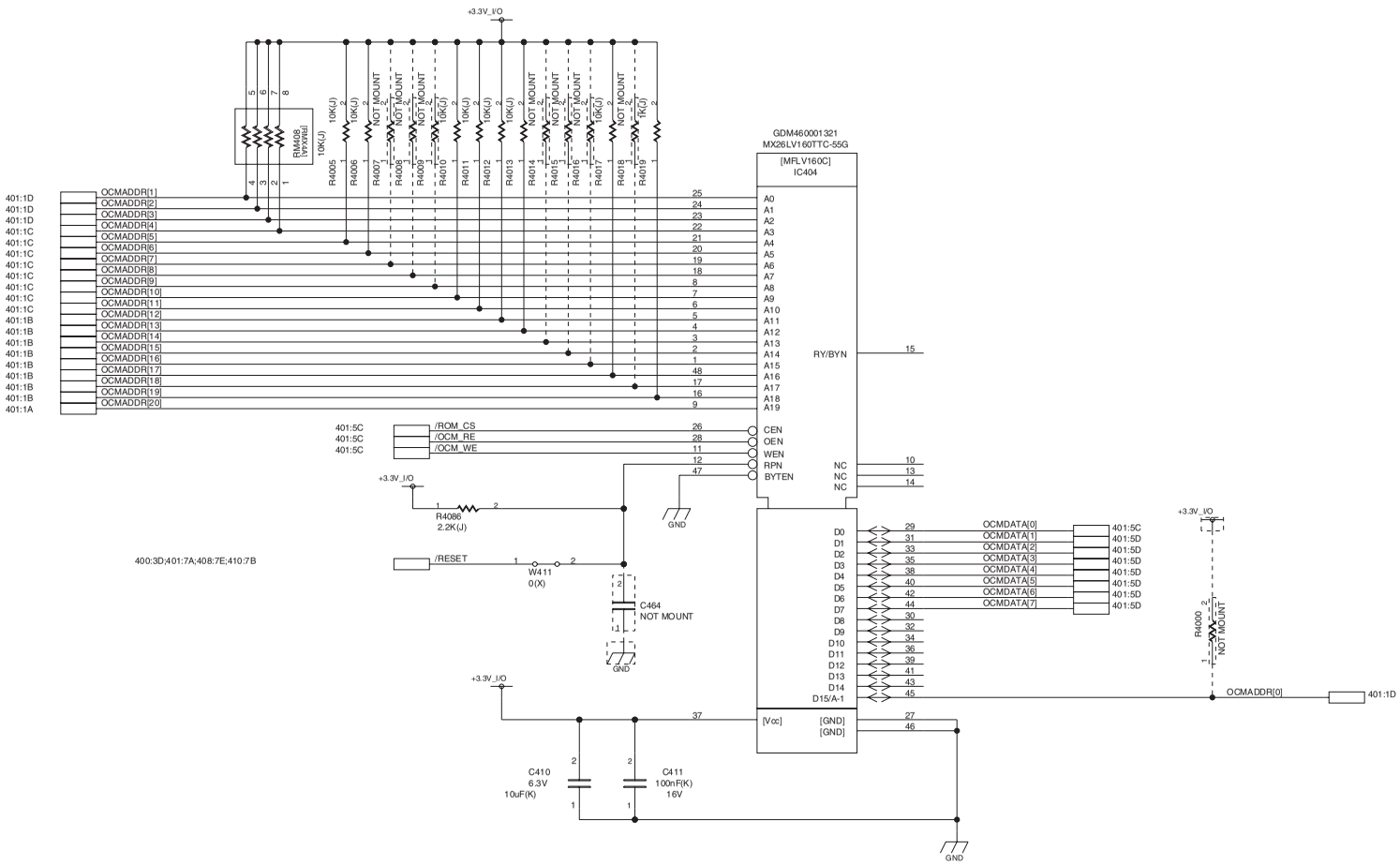
SH.NO.
309


56/62/72HM195
SIGNAL (FLI8532 MICRO I/O)
SH.NO.
400
[U8532]
4/9
IC700
XTAL
TCLK
PWM0
PWM1
PWM2
IR0
LBADC_IN6
LBADC_IN5
LBADC_IN4
LBADC_IN3
LBADC_IN2
LBADC_IN1
LBADC_RET
OCM_UDO_0
OCM_UDI_0
OCM_UDO_1
OCM_UDI_1
/RESET
MSTR0_SCL
MSTR0_SDA
MSTR1_SCL
MSTR1_SDA
MSTR2_SCL
MSTR2_SDA
VGA0_SCL
VGA0_SDA
VGA1_SCL
VGA1_SDA
SLAVE_SDA
SLAVE_SCL
OCM_INT1
OCM_INT2
OCM_TIMER1
NC
NC
NC
AVS_OUT_WS
AVS_OUT_SCL
AVS_OUT_DAT
AVS_IN_DATA
AVS_IN_WS
AVS_IN_SCL
TC7W66FU(TE12L,F)
GDM450000483
[CL2G066]
IC406
IN/OUT
OUT/IN
CONT
VCC
GND
UART_OUT
BTXD
HOST_RST
UPDATE
AC_DETECT
STOP_FAN
FAN_DAC2
FAN_DAC1
RMT_IN_S
AFT2
AFT1
KEY3
KEY2
KEY1
KEY_GND
ATXD
BRXD
ARXD
SCL0
SDA0
SCL1
SDA1
SCL2
SDA2
I2S_DA_IN1
I2S_DA_OUT
I2S_DA_WS
I2S_DA_CL
POWER_DB_0
MUTE
EXT_MUTE
AT-51CD2(EXS00A-01851)
GDM10000236
X700
19.6608MHz
D889
MA112-(TX)
Q413
DTC143ZUA T106
[TRNC]
NOT MOUNT
[C3A2]
PJ403
+3.3V_PLL
+3.3V_I/O
3.3V1
GND



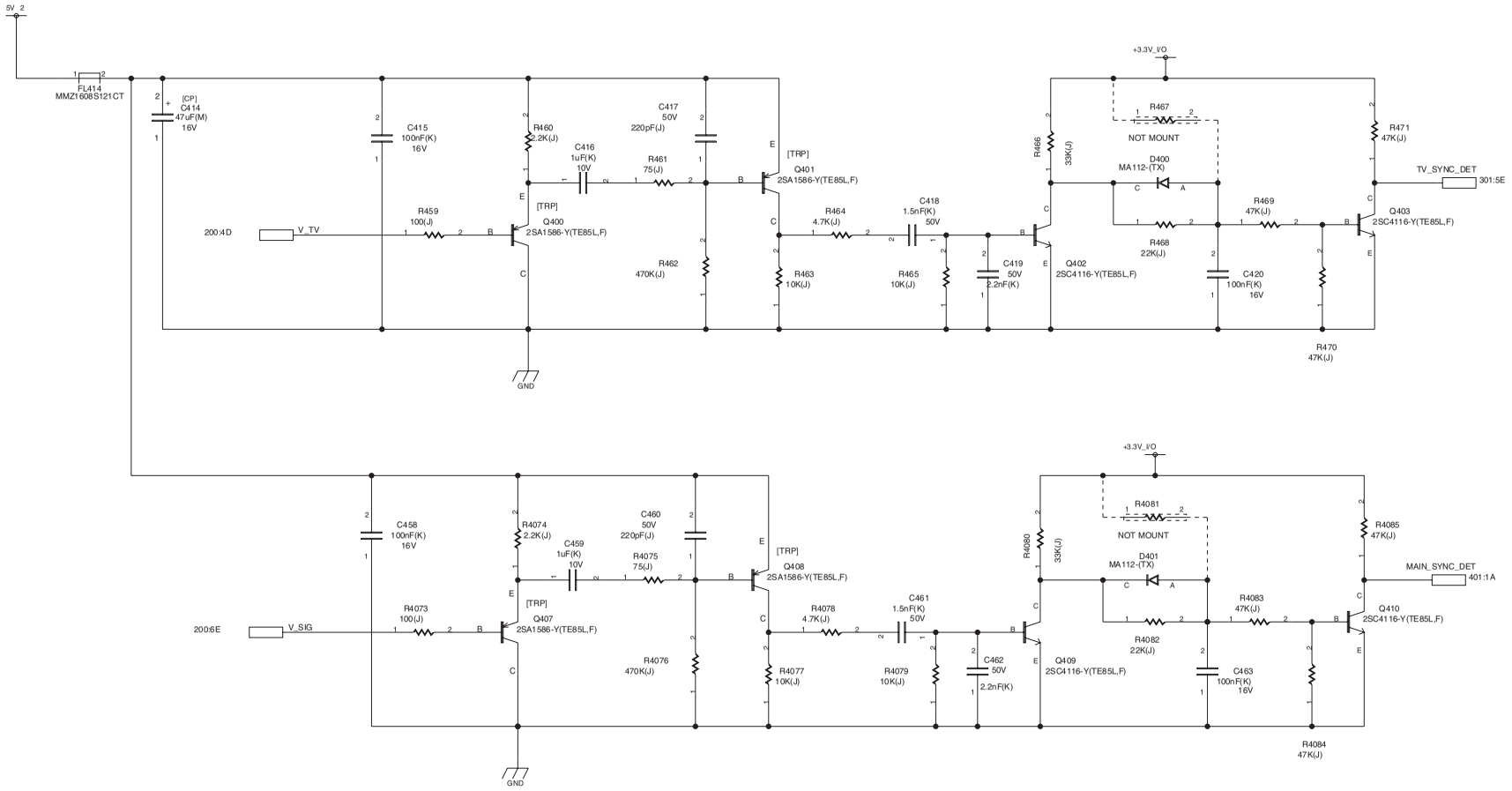
56/62/72HM195
SIGNAL (FLI8532 OCM MEMORY I/F)

SH.NO.
401



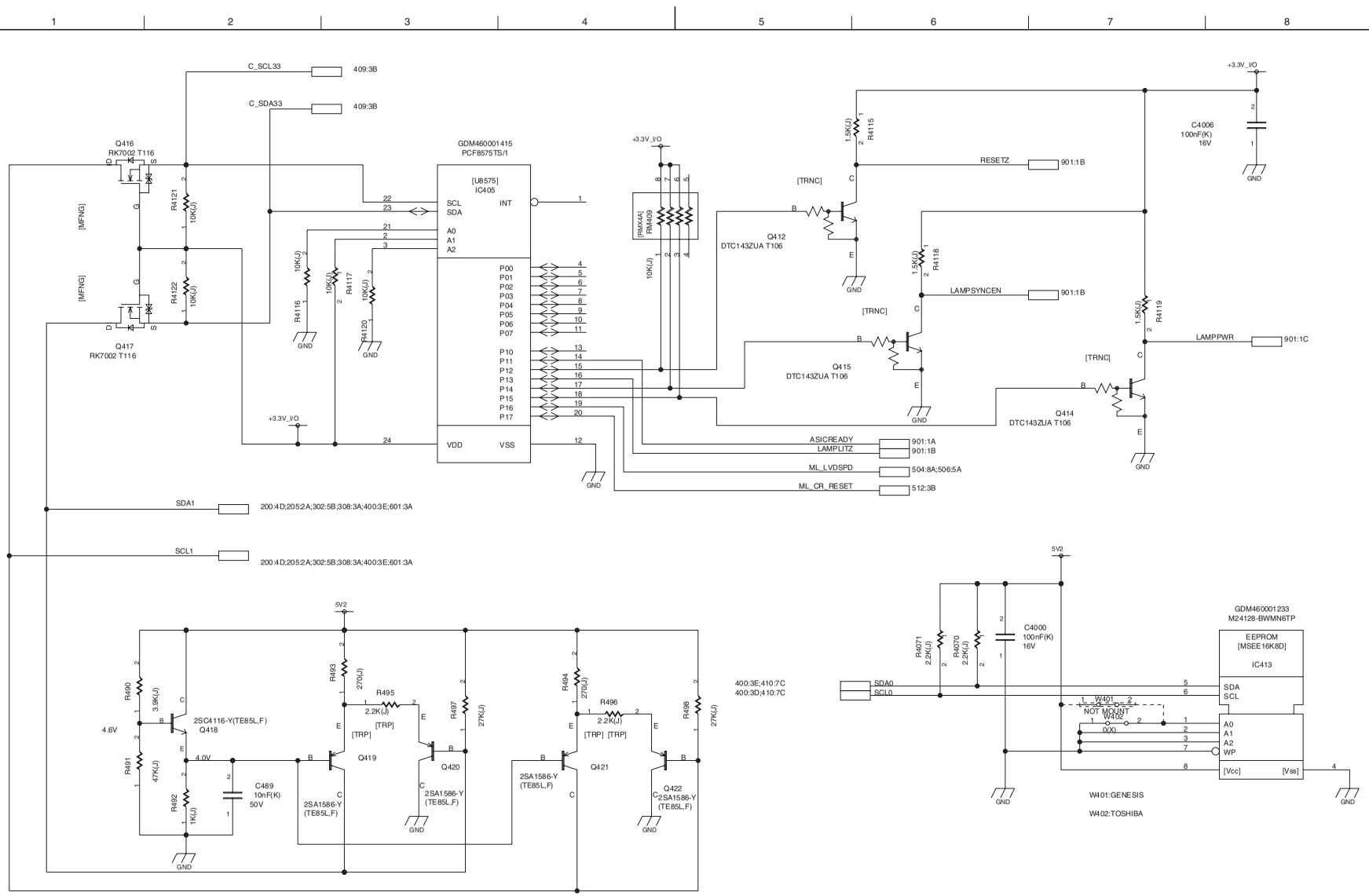
56/62/72HM195
SIGNAL (FLASH MEMORY)

SH.NO
402



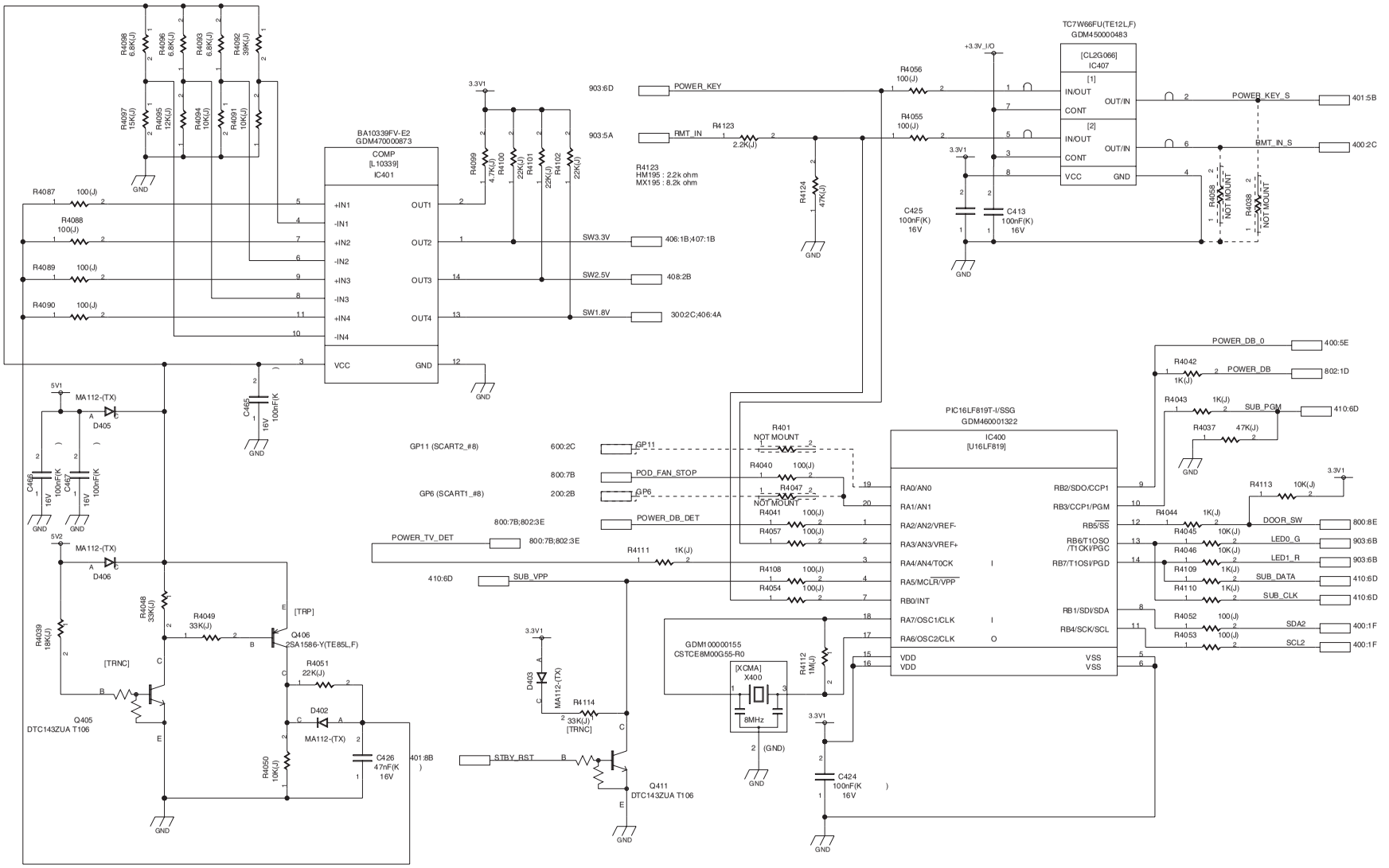
56/62/72HM195
SIGNAL (SYNC SEPA)

SH.NO.
403



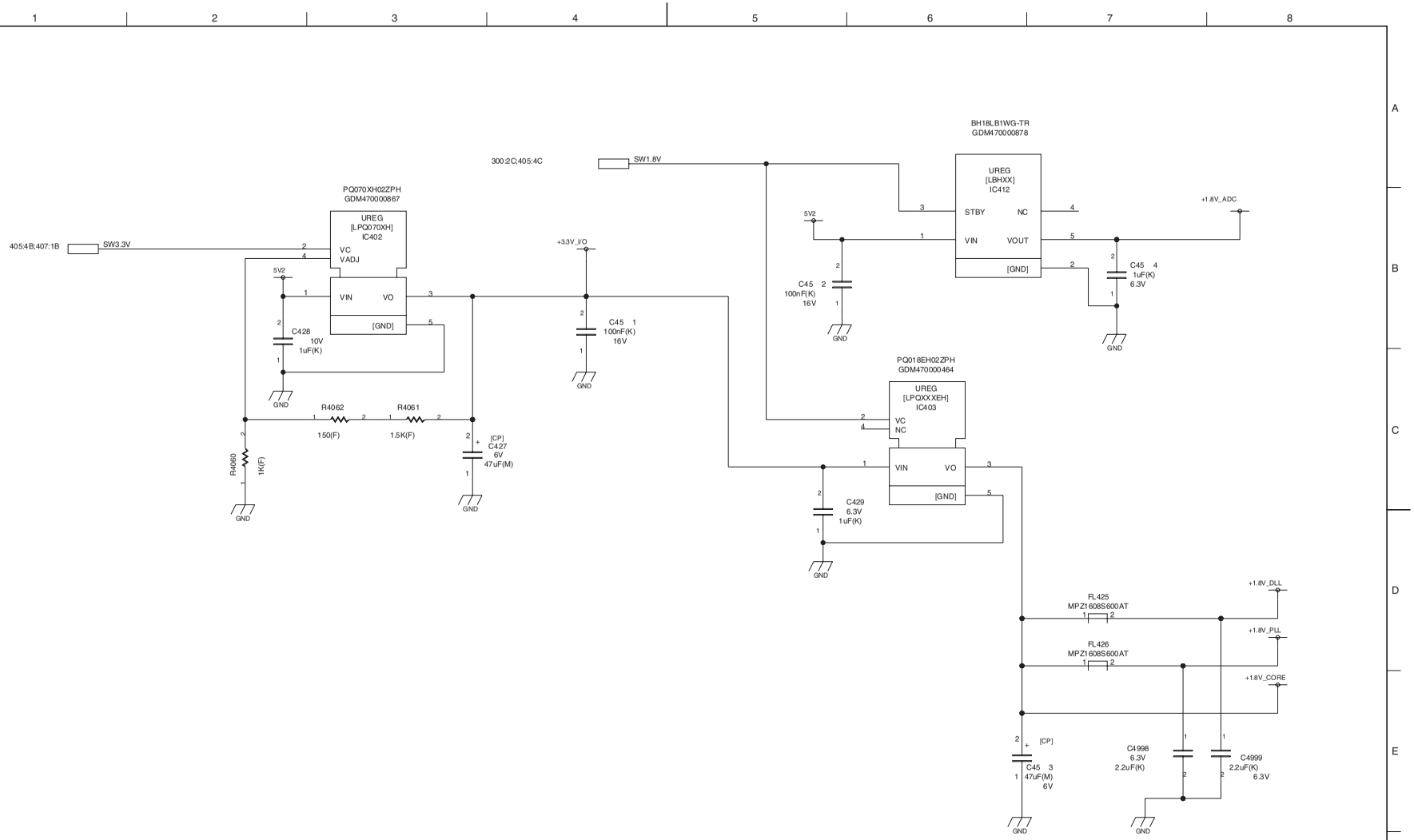
56/62/72HM195
SIGNAL (I/O_ EXPANDER/E2P ROM)

SH.NO.
404



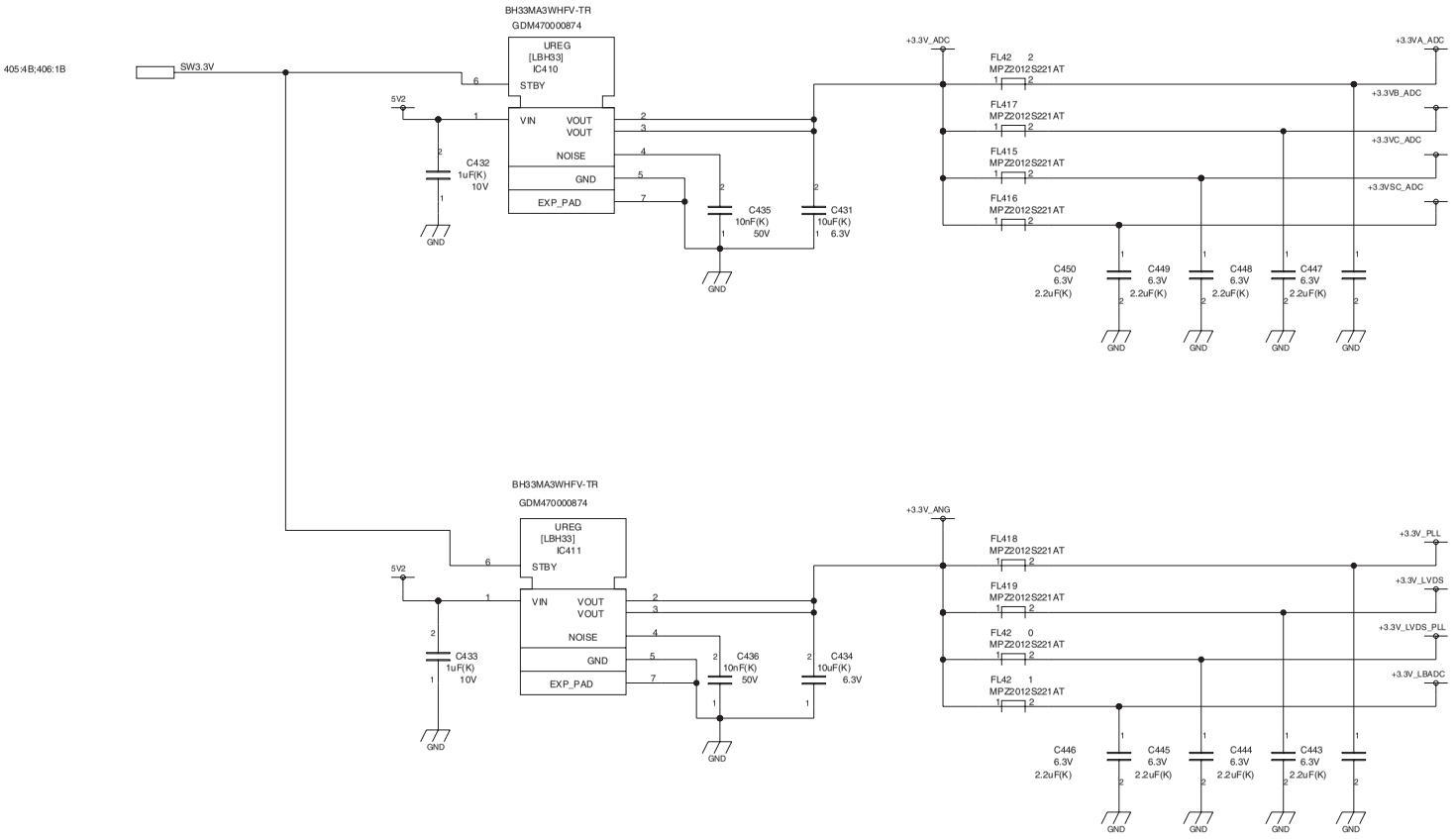
56/62/72HM195
SIGNAL (STD-BY MICOR)

SH.NO.
405



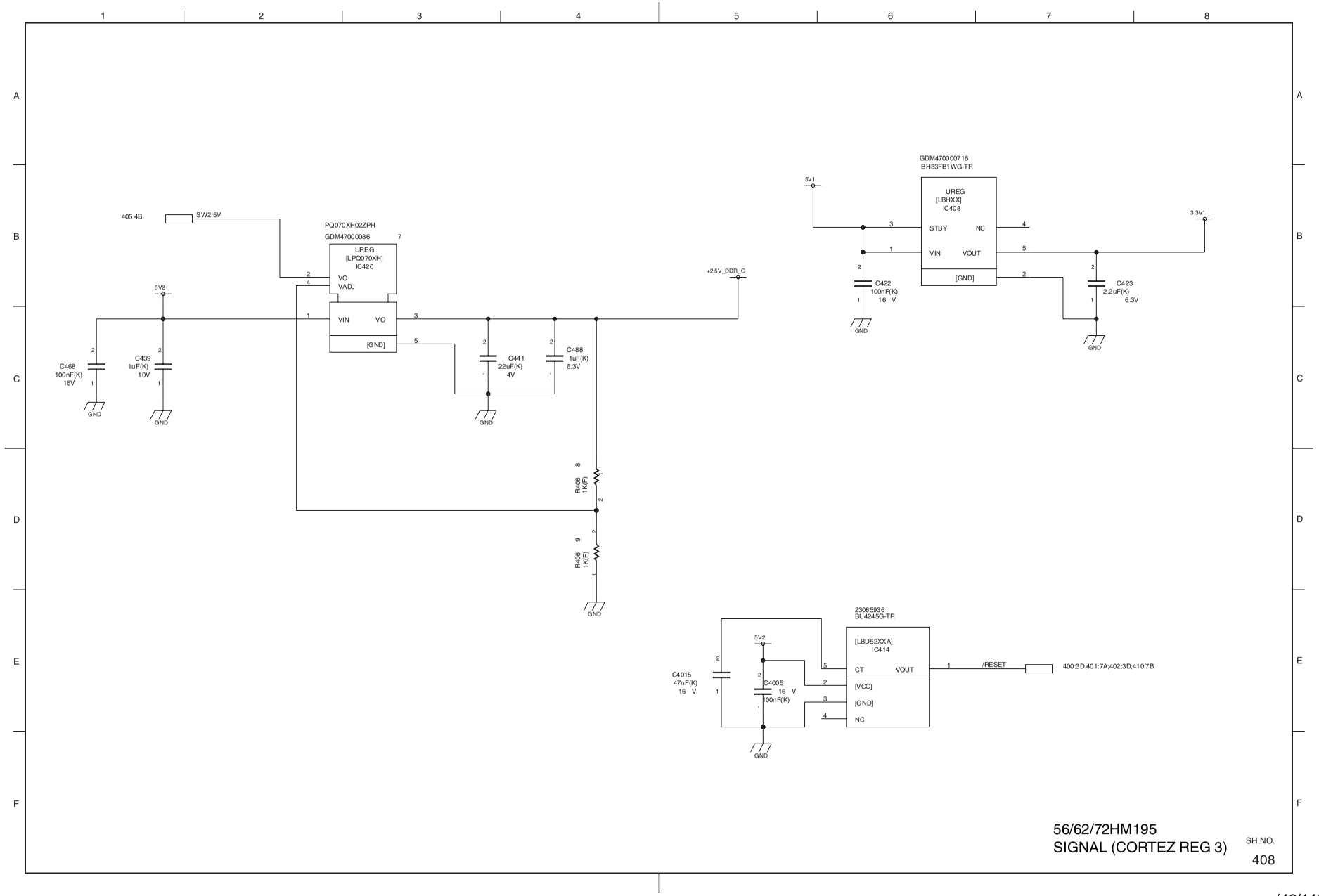
56/62/72HM195
SIGNAL (CORTEZ REG 1)

SH.NO.
406



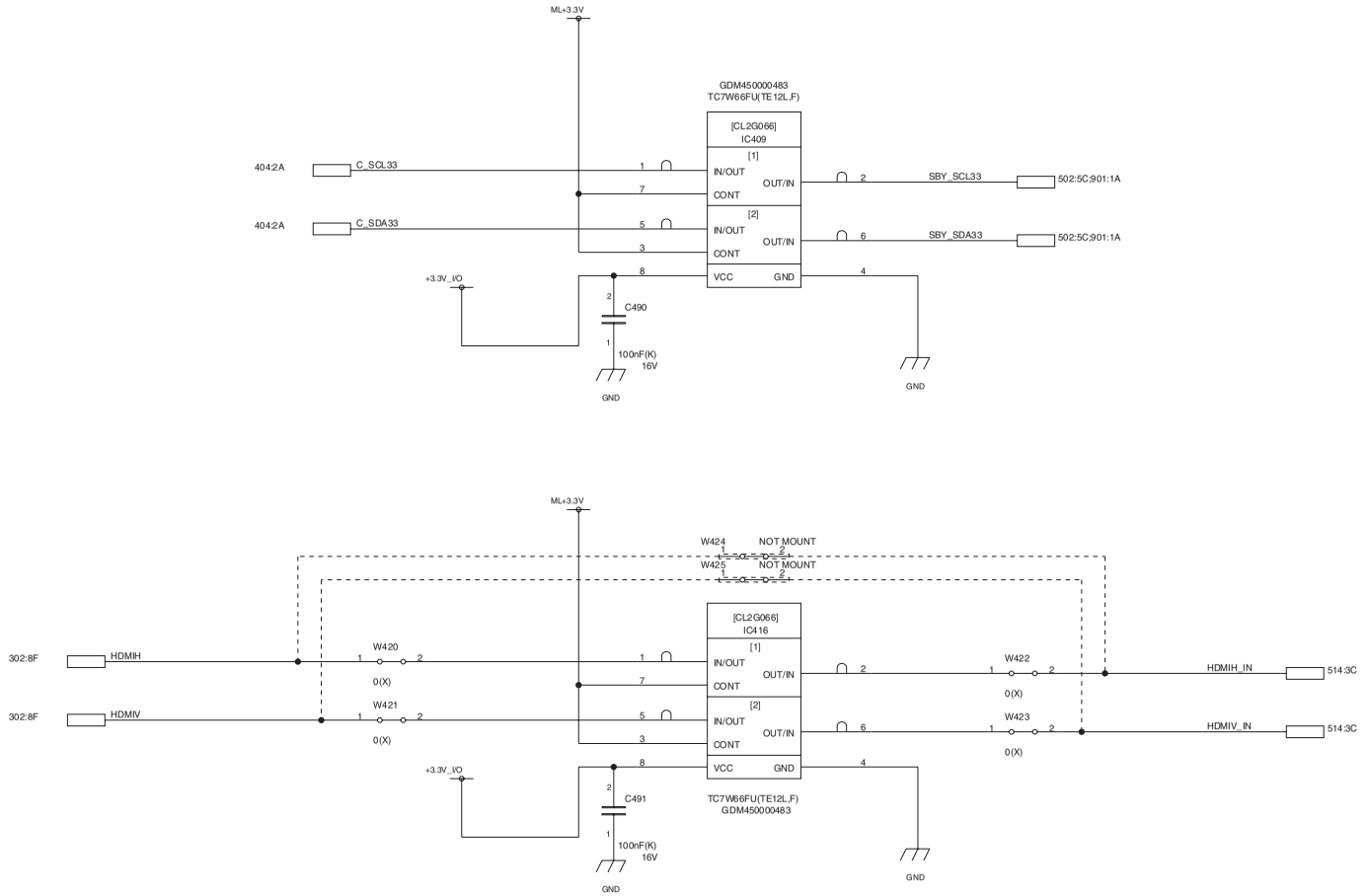
56/62/72HM195
SIGNAL (CORTEZ REG 2)

SH.NO.
407



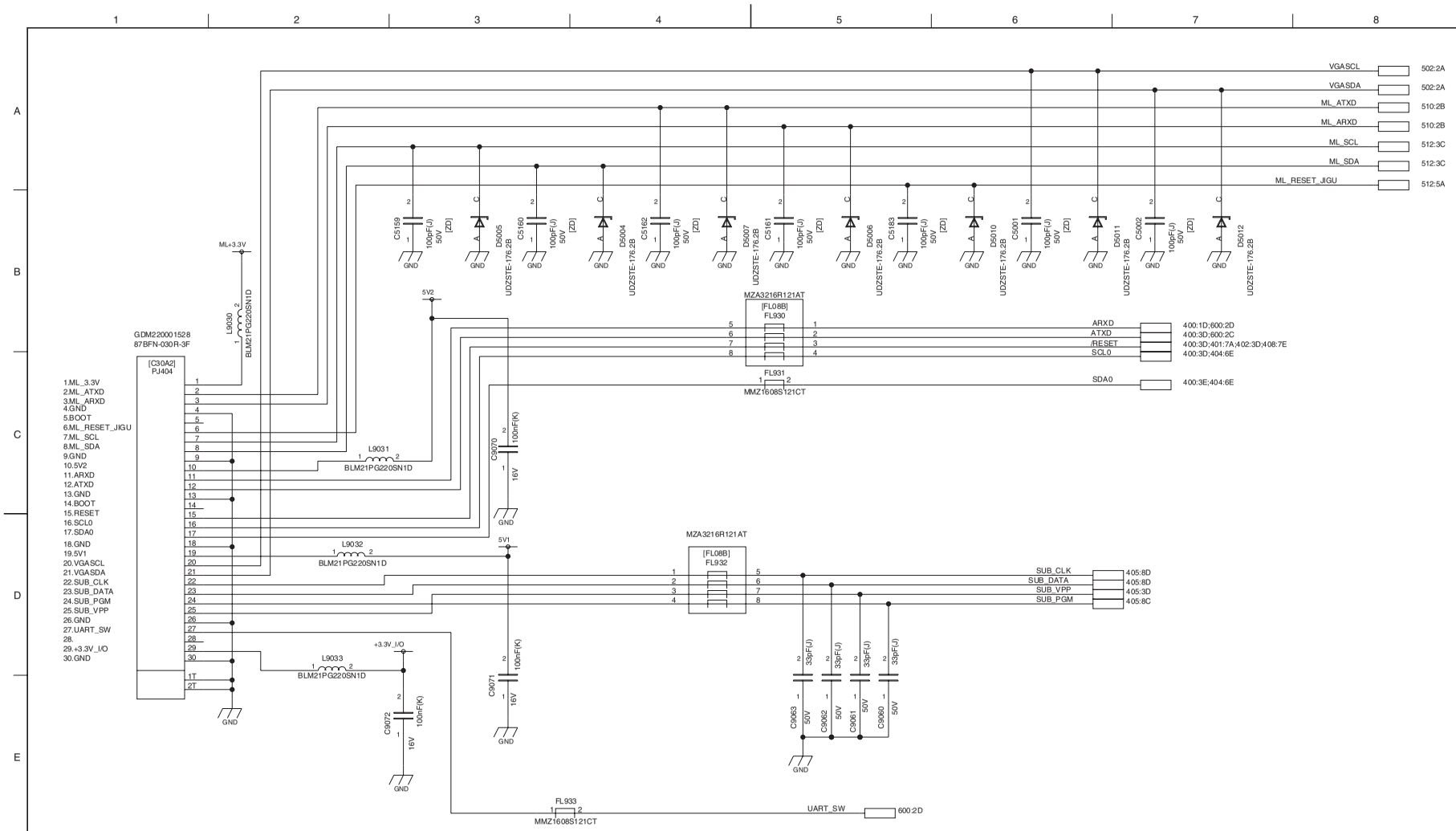
56/62/72HM195
SIGNAL (CORTEZ REG 3)

SH.NO.
408



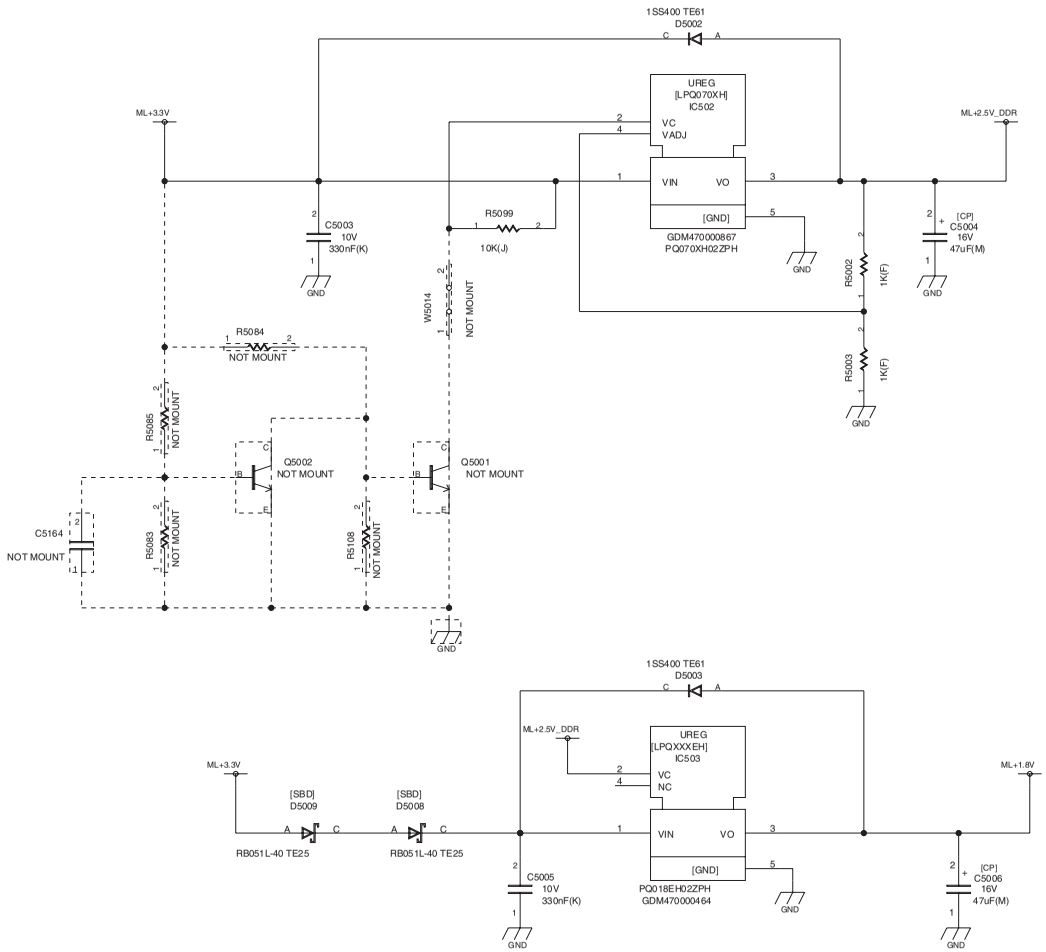
56/62/72HM195
SIGNAL (I2C Switch)

SH.NO.
409



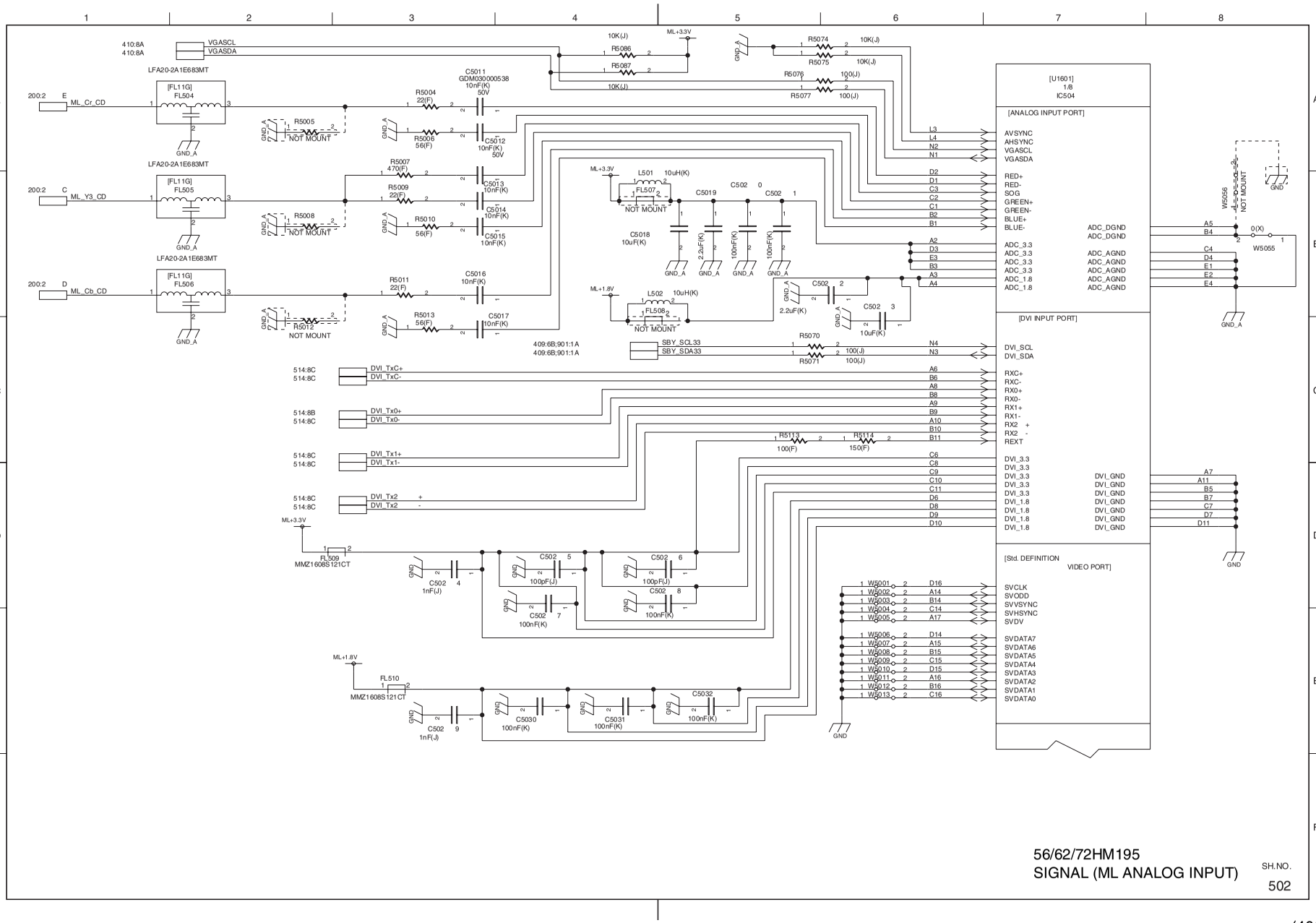
56/62/72HM195
SIGNAL (SERVICE CONNECTOR)

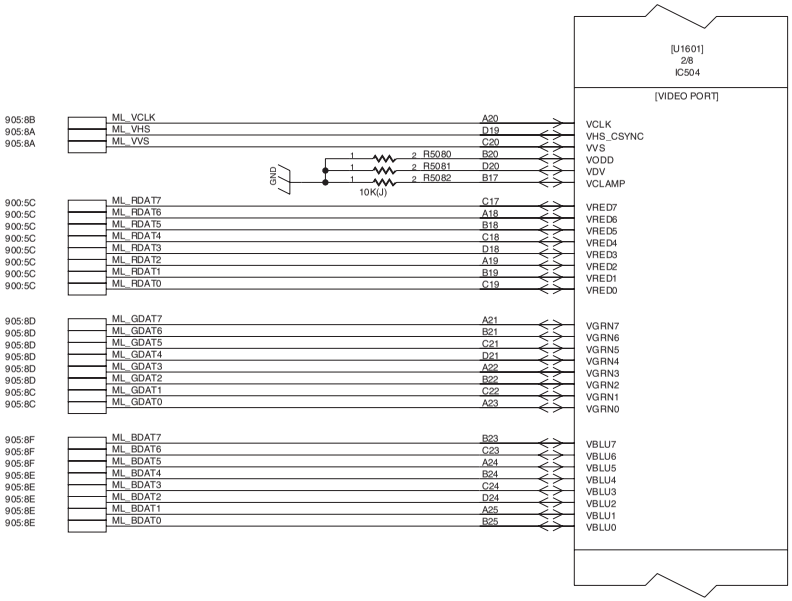
SH.NO.
410



56/62/72HM195
SIGNAL (ML POWER)

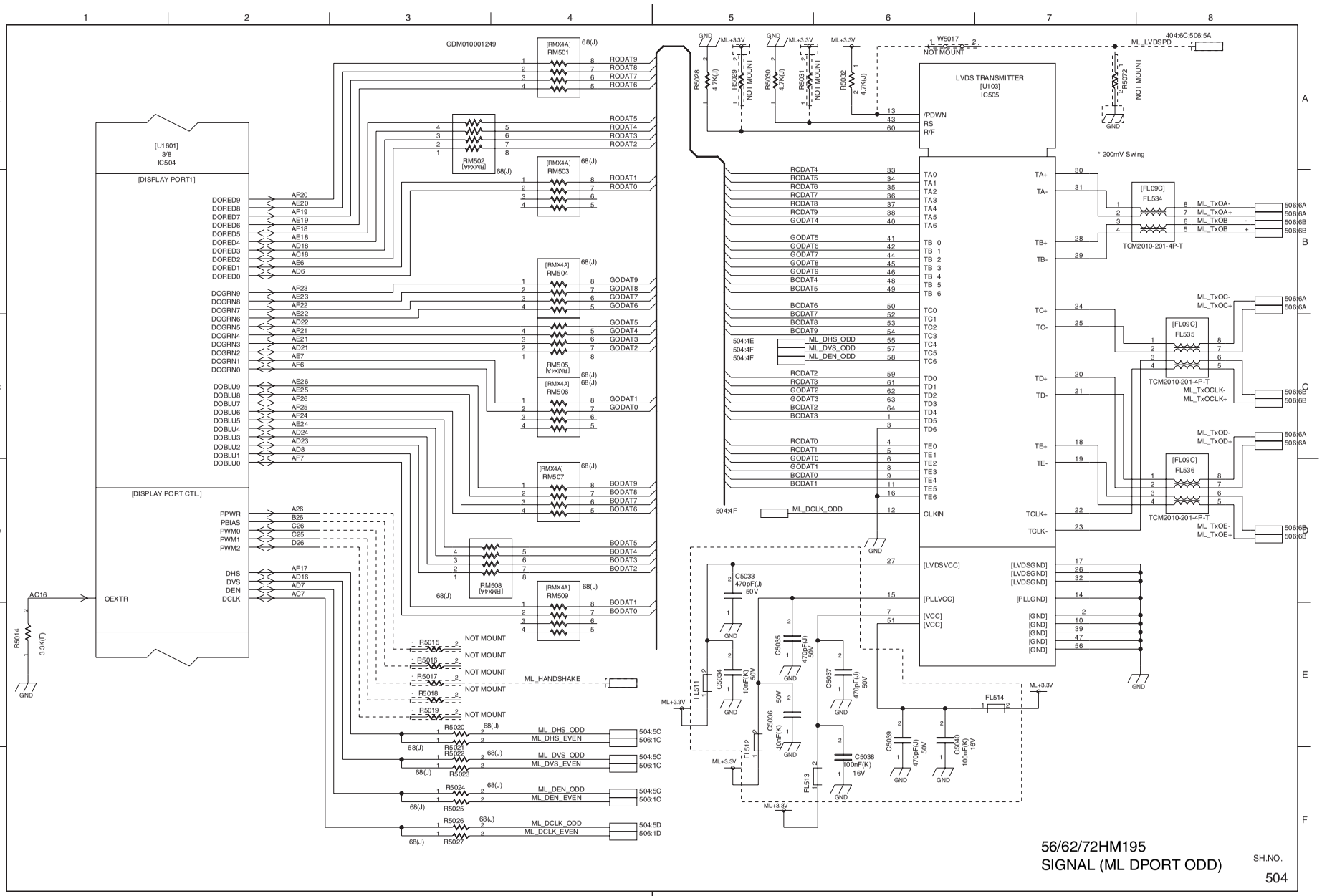
SH.NO.
501

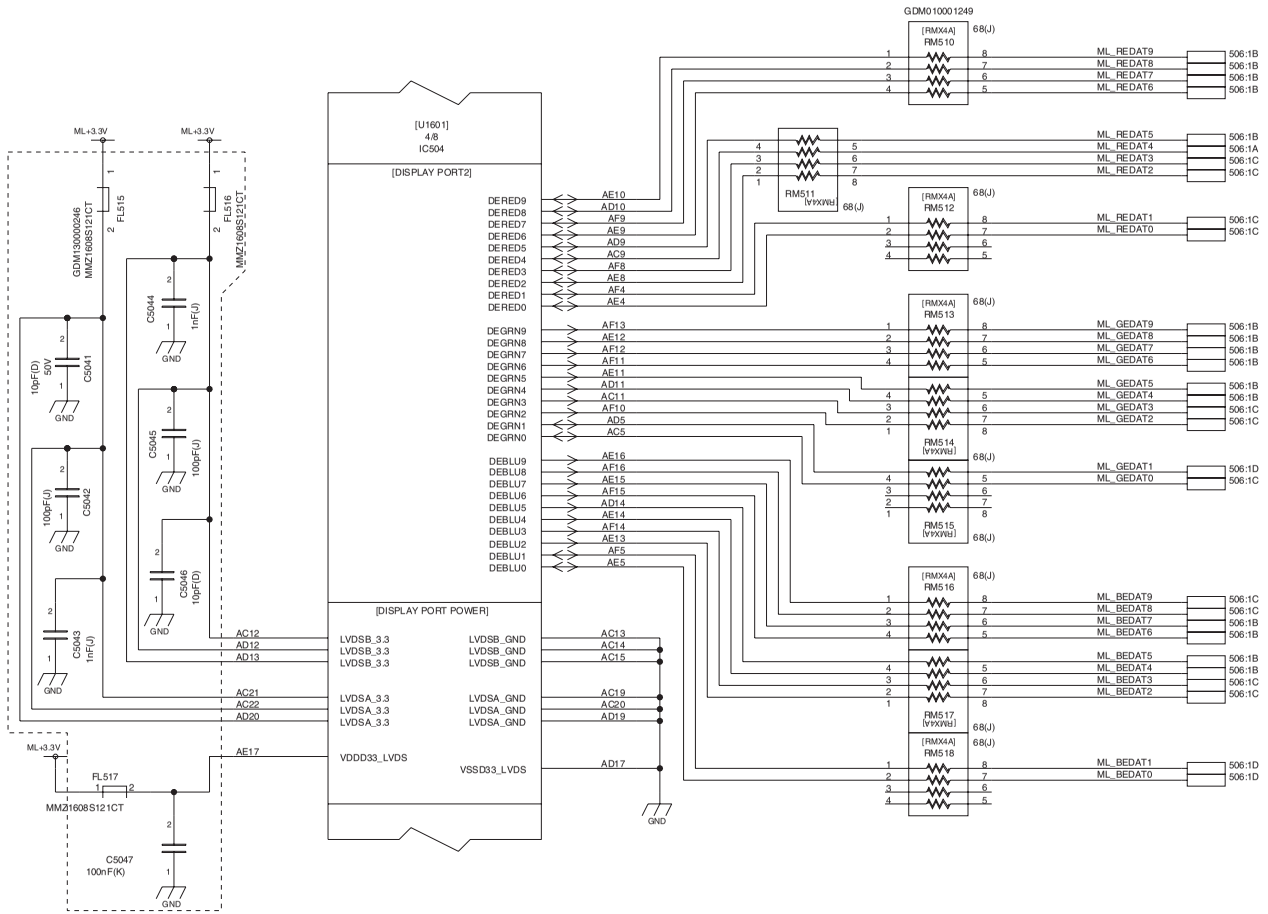

56/62/72HM195
SIGNAL (ML ANALOG INPUT)
SH.NO.
502
[U1601]
1/8
IC504
[ANALOG INPUT PORT]
[DVI INPUT PORT]
[Std. DEFINITION
VIDEO PORT]
VGASCL
VGASDA
ML_Cr_CD
ML_Y3_CD
ML_Cb_CD
LFA20-2A1E683MT
MMZ1608S121CT
NOT MOUNT
DVI_TxC+
DVI_TxC-
DVI_Tx0+
DVI_Tx0-
DVI_Tx1+
DVI_Tx1-
DVI_Tx2 +
DVI_Tx2 -
SBY_SCL33
SBY_SDA33
AVSYNC
AHSYNC
VGASCL
VGASDA
RED+
RED-
SOG
GREEN+
GREEN-
BLUE+
BLUE-
RXC+
RXC-
RX0+
RX0-
RX1+
RX1-
RX2 +
RX2 -
REXT
DVI_SCL
DVI_SDA
SVCLK
SVODD
SVVSYNC
SVHSYNC
SVDV
SVDATA7
SVDATA6
SVDATA5
SVDATA4
SVDATA3
SVDATA2
SVDATA1
SVDATA0



56/62/72HM195
SIGNAL (ML DIGITAL INPUT)

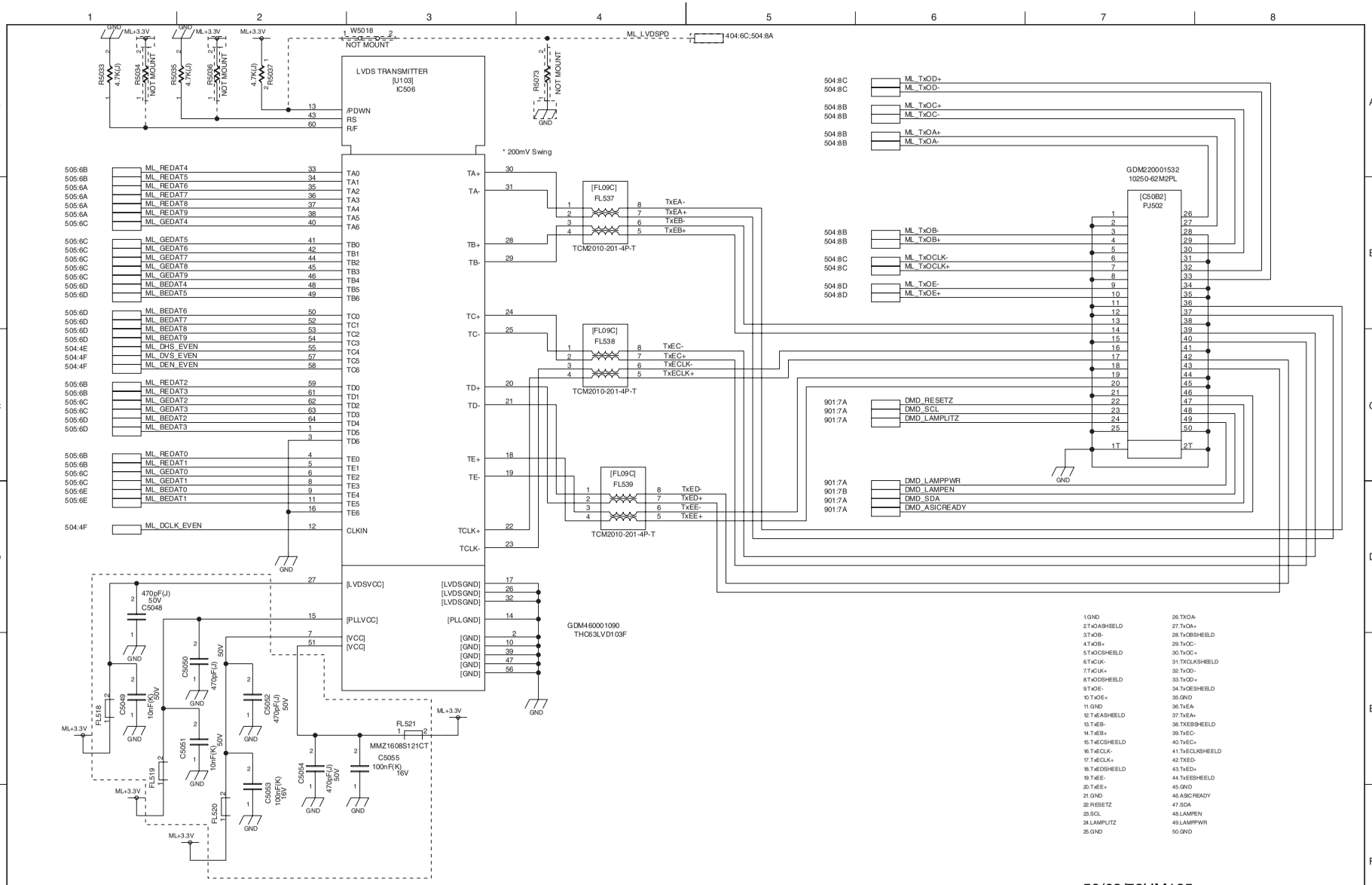
SH.NO.
503

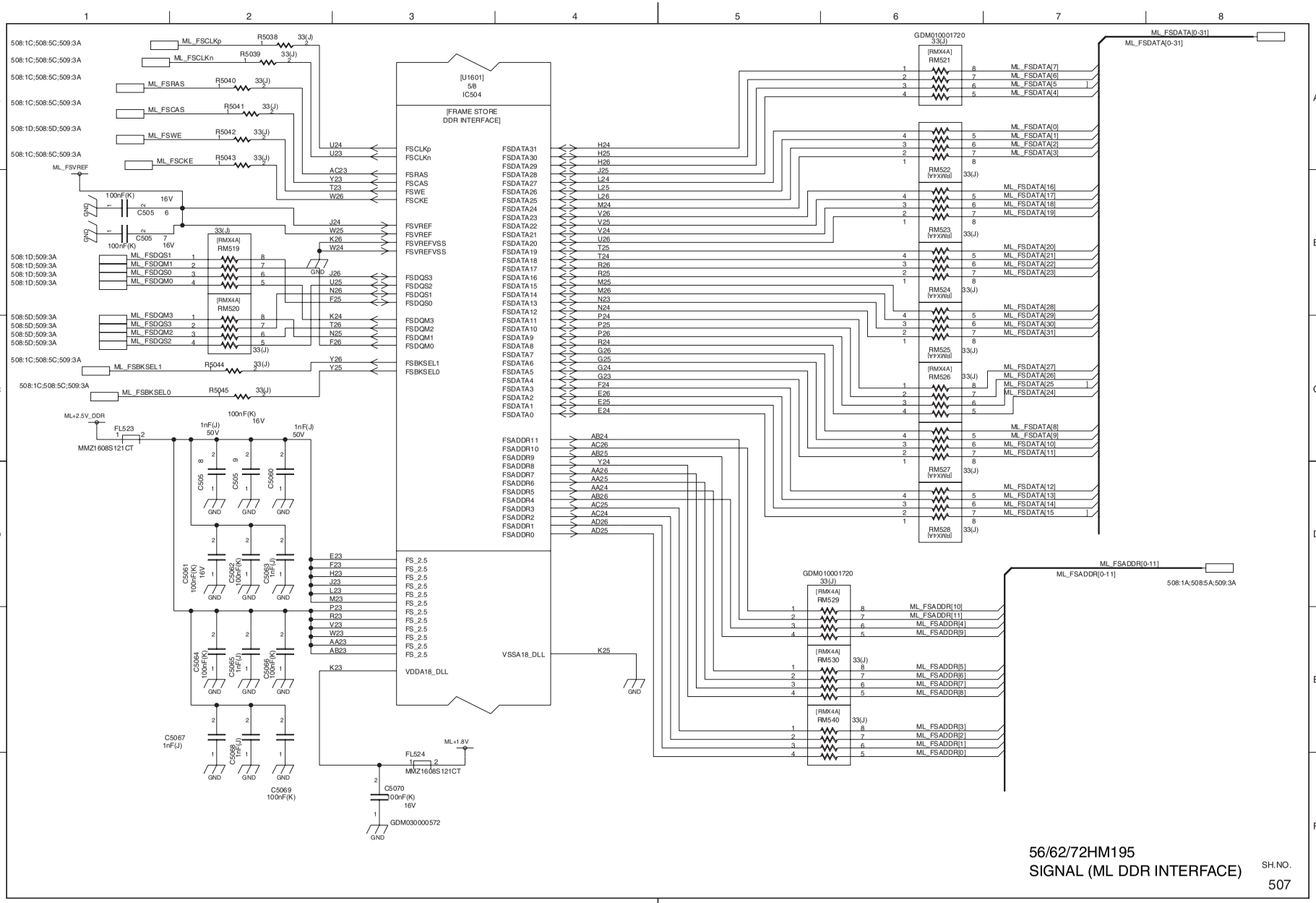

GDM010001249
[U1601]
3/8
IC504
[DISPLAY PORT1]
[DISPLAY PORT CTL.]
OEXTR
AC16
R5014
3.3K(F)
LVDS TRANSMITTER
[U103]
IC505
W5017
NOT MOUNT
ML_LVDSPD
404:6C;506:5A
* 200mV Swing
TCM2010-201-4P-T
ML_HANDSHAKE
ML_DHS_ODD
ML_DHS_EVEN
ML_DVS_ODD
ML_DVS_EVEN
ML_DEN_ODD
ML_DEN_EVEN
ML_DCLK_ODD
ML_DCLK_EVEN
56/62/72HM195
SIGNAL (ML DPORT ODD)
SH.NO.
504



56/62/72HM195
SIGNAL (ML DPORT EVEN1)

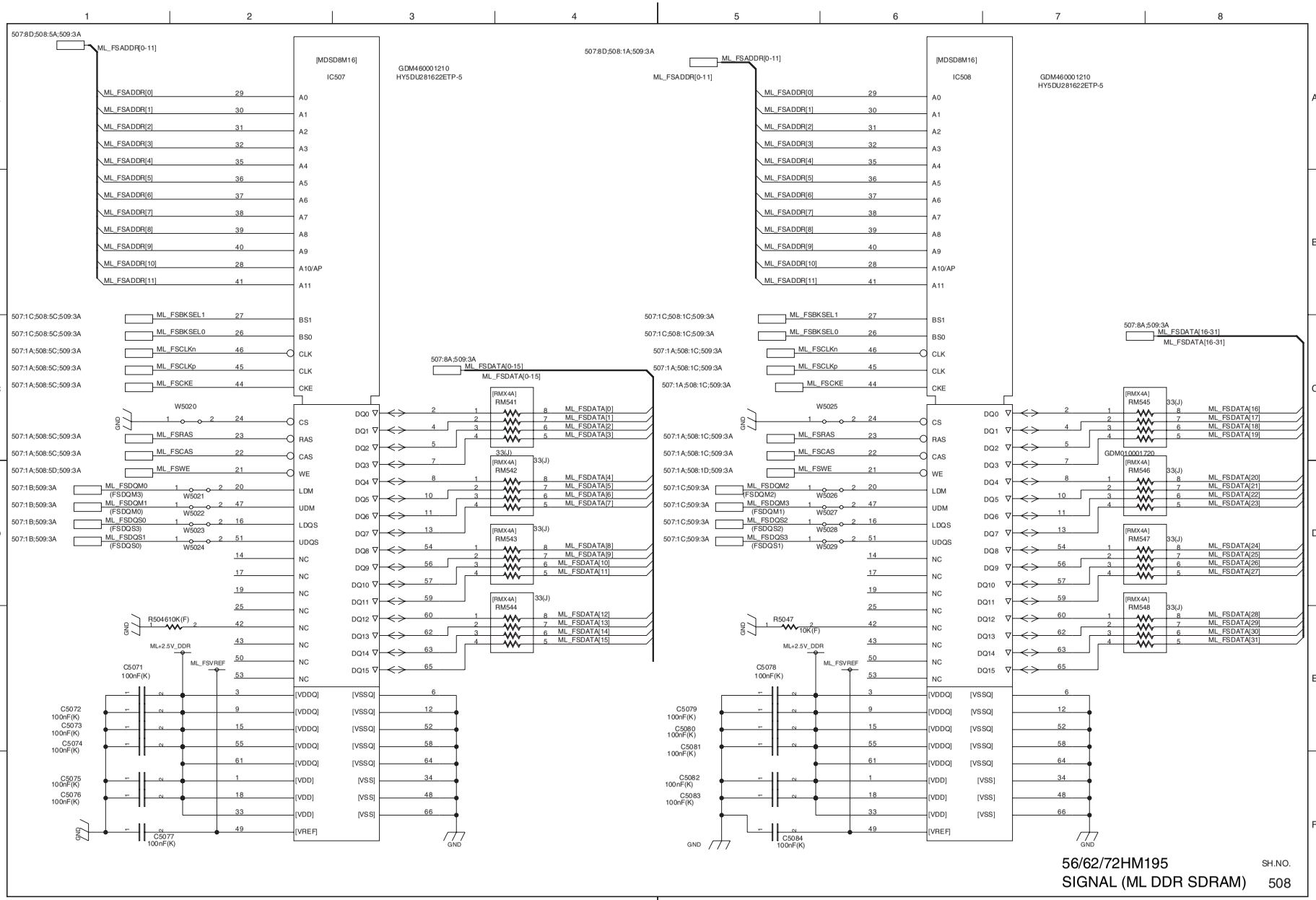
SH.NO.
505

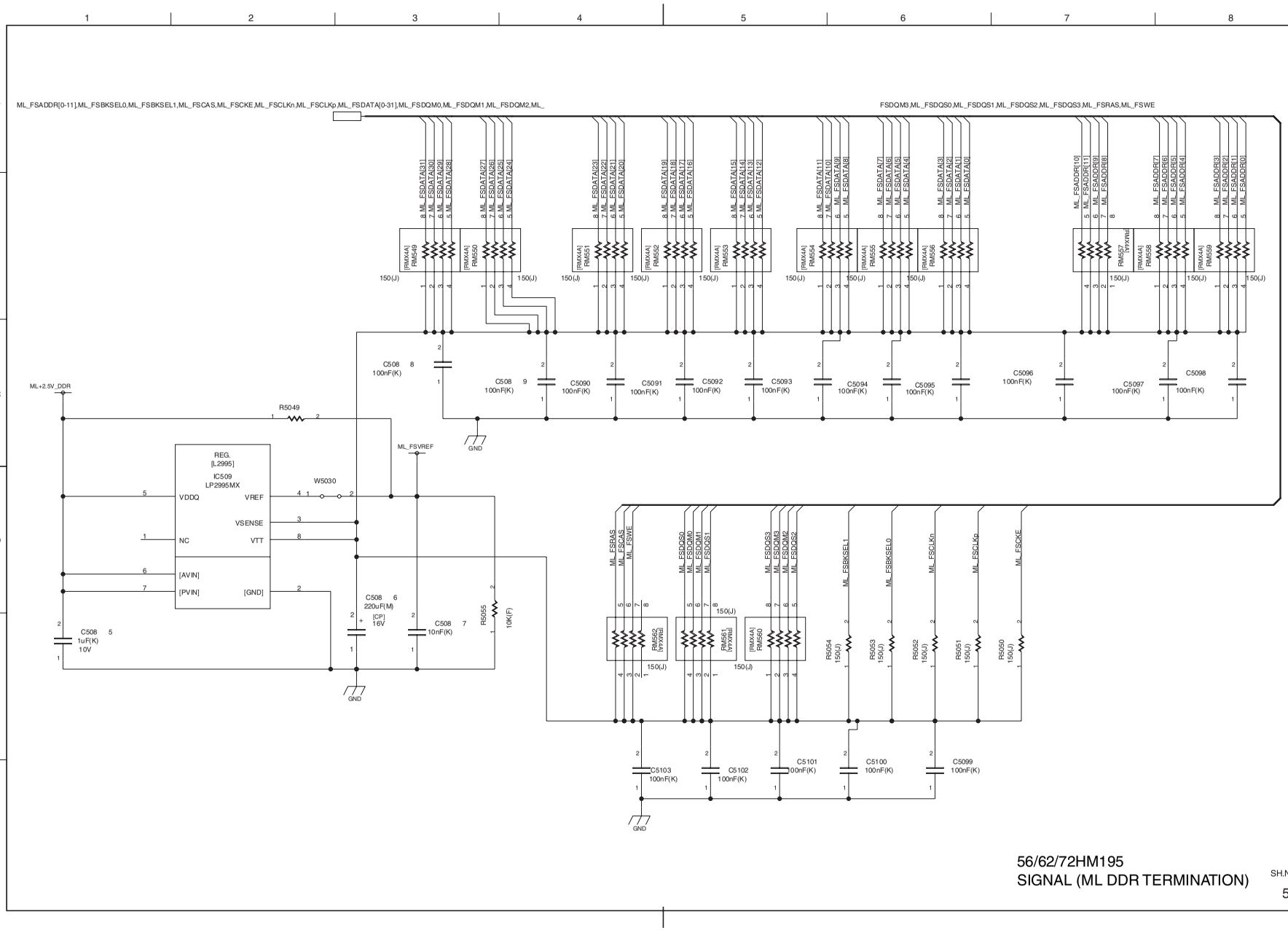

LVDS TRANSMITTER
[U103]
IC506
* 200mV Swing
W5018
NOT MOUNT
ML_LVDSPD
404:6C;504:8A
R5033 4.7K(J)
R5034 NOT MOUNT
R5035 4.7K(J)
R5036 NOT MOUNT
R5037 4.7K(J)
R5073 NOT MOUNT
/PDWN
RS
R/F
TA+
TA-
TB+
TB-
TC+
TC-
TD+
TD-
TE+
TE-
TCLK+
TCLK-
CLKIN
[LVDSVCC]
[PLLVCC]
[VCC]
[LVDSGND]
[PLLGND]
[GND]
ML_REDAT4
ML_REDAT5
ML_REDAT6
ML_REDAT7
ML_REDAT8
ML_REDAT9
ML_GEDAT4
ML_GEDAT5
ML_GEDAT6
ML_GEDAT7
ML_GEDAT8
ML_GEDAT9
ML_BEDAT4
ML_BEDAT5
ML_BEDAT6
ML_BEDAT7
ML_BEDAT8
ML_BEDAT9
ML_DHS_EVEN
ML_DVS_EVEN
ML_DEN_EVEN
ML_REDAT2
ML_REDAT3
ML_GEDAT2
ML_GEDAT3
ML_BEDAT2
ML_BEDAT3
ML_REDAT0
ML_REDAT1
ML_GEDAT0
ML_GEDAT1
ML_BEDAT0
ML_BEDAT1
ML_DCLK_EVEN
[FL09C] FL537
[FL09C] FL538
[FL09C] FL539
TCM2010-201-4P-T
TxEA-
TxEA+
TxEB-
TxEB+
TxEC-
TxEC+
TxECLK-
TxECLK+
TxED-
TxED+
TxEE-
TxEE+
GDM460001090
THC63LVD103F
GDM220001532
10250-62M2PL
[C50B2]
PJ502
ML_TxOD+
ML_TxOD-
ML_TxOC+
ML_TxOC-
ML_TxOA+
ML_TxOA-
ML_TxOB-
ML_TxOB+
ML_TxOCLK-
ML_TxOCLK+
ML_TxOE-
ML_TxOE+
DMD_RESETZ
DMD_SCL
DMD_LAMPLITZ
DMD_LAMPPWR
DMD_LAMPEN
DMD_SDA
DMD_ASICREADY
470pF(J) 50V C5048
C5050 470pF(J) 50V
C5052 470pF(J) 50V
C5049 10nF(K) 50V
C5051 10nF(K) 50V
C5053 100nF(K) 16V
C5054 470pF(J) 50V
C5055 100nF(K) 16V
FL518
FL519
FL520
FL521
MMZ1608S121CT
1.GND
2.TxOASHEELD
3.TxOB-
4.TxOB+
5.TxOCSHEELD
6.TxCLK-
7.TxCLK+
8.TxODSHEELD
9.TxOE-
10.TxOE+
11.GND
12.TxEASHEELD
13.TxEB-
14.TxEB+
15.TxECSHEELD
16.TxECLK-
17.TxECLK+
18.TxEDSHEELD
19.TxEE-
20.TxEE+
21.GND
22.RESETZ
23.SCL
24.LAMPLITZ
25.GND
26.TxOA-
27.TxOA+
28.TxOBSHEELD
29.TxOC-
30.TxOC+
31.TxCLKSHEELD
32.TxOD-
33.TxOD+
34.TxOESHEELD
35.GND
36.TxEA-
37.TxEA+
38.TxEBSHEELD
39.TxEC-
40.TxEC+
41.TxECLKSHEELD
42.TxED-
43.TxED+
44.TxEESHEELD
45.GND
46.ASICREADY
47.SDA
48.LAMPEN
49.LAMPPWR
50.GND
56/62/72HM195
SIGNAL (ML DPORT EVEN2)
SH.NO.
506



56/62/72HM195
SIGNAL (ML DDR INTERFACE)

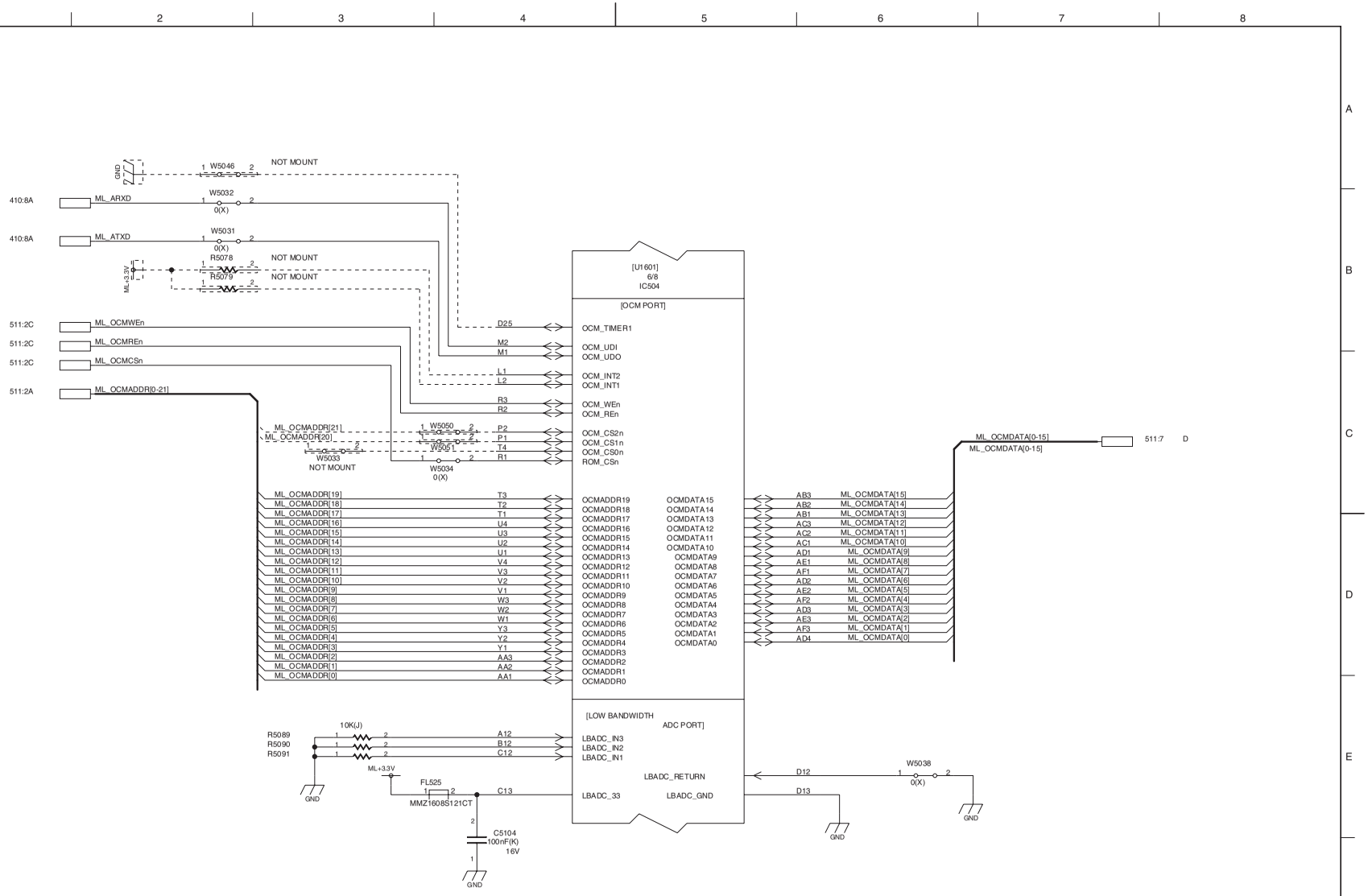
SH.NO.
507


507:8D;508:5A;509:3A
ML_FSADDR[0-11]
[MDSD8M16]
IC507
GDM460001210
HY5DU281622ETP-5
ML_FSADDR[0]
ML_FSADDR[1]
ML_FSADDR[2]
ML_FSADDR[3]
ML_FSADDR[4]
ML_FSADDR[5]
ML_FSADDR[6]
ML_FSADDR[7]
ML_FSADDR[8]
ML_FSADDR[9]
ML_FSADDR[10]
ML_FSADDR[11]
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10/AP
A11
507:1C;508:5C;509:3A
ML_FSBKSEL1
ML_FSBKSEL0
BS1
BS0
507:1A;508:5C;509:3A
ML_FSCLKn
ML_FSCLKp
CLK
CKE
ML_FSCKE
W5020
GND
CS
507:1A;508:5C;509:3A
ML_FSRAS
RAS
ML_FSCAS
CAS
507:1A;508:5D;509:3A
ML_FSWE
WE
507:1B;509:3A
ML_FSDQM0
(FSDQM3)
W5021
LDM
ML_FSDQM1
(FSDQM0)
W5022
UDM
ML_FSDQS0
(FSDQS3)
W5023
LDQS
ML_FSDQS1
(FSDQS0)
W5024
UDQS
NC
R504610K(F)
ML+2.5V_DDR
ML_FSVREF
C5071
100nF(K)
C5072
100nF(K)
C5073
100nF(K)
C5074
100nF(K)
C5075
100nF(K)
C5076
100nF(K)
C5077
100nF(K)
[VDDQ]
[VSSQ]
[VDD]
[VSS]
[VREF]
507:8A;509:3A
ML_FSDATA[0-15]
[RMX4A]
RM541
RM542
RM543
RM544
33(J)
ML_FSDATA[0]
ML_FSDATA[1]
ML_FSDATA[2]
ML_FSDATA[3]
ML_FSDATA[4]
ML_FSDATA[5]
ML_FSDATA[6]
ML_FSDATA[7]
ML_FSDATA[8]
ML_FSDATA[9]
ML_FSDATA[10]
ML_FSDATA[11]
ML_FSDATA[12]
ML_FSDATA[13]
ML_FSDATA[14]
ML_FSDATA[15]
DQ0
DQ1
DQ2
DQ3
DQ4
DQ5
DQ6
DQ7
DQ8
DQ9
DQ10
DQ11
DQ12
DQ13
DQ14
DQ15
507:8D;508:1A;509:3A
ML_FSADDR[0-11]
[MDSD8M16]
IC508
GDM460001210
HY5DU281622ETP-5
507:1C;508:1C;509:3A
ML_FSBKSEL1
ML_FSBKSEL0
507:1A;508:1C;509:3A
ML_FSCLKn
ML_FSCLKp
ML_FSCKE
W5025
ML_FSRAS
ML_FSCAS
507:1A;508:1D;509:3A
ML_FSWE
507:1C;509:3A
ML_FSDQM2
(FSDQM2)
W5026
ML_FSDQM3
(FSDQM1)
W5027
ML_FSDQS2
(FSDQS2)
W5028
ML_FSDQS3
(FSDQS1)
W5029
R5047
10K(F)
C5078
100nF(K)
C5079
100nF(K)
C5080
100nF(K)
C5081
100nF(K)
C5082
100nF(K)
C5083
100nF(K)
C5084
100nF(K)
507:8A;509:3A
ML_FSDATA[16-31]
RM545
RM546
RM547
RM548
GDM010001720
ML_FSDATA[16]
ML_FSDATA[17]
ML_FSDATA[18]
ML_FSDATA[19]
ML_FSDATA[20]
ML_FSDATA[21]
ML_FSDATA[22]
ML_FSDATA[23]
ML_FSDATA[24]
ML_FSDATA[25]
ML_FSDATA[26]
ML_FSDATA[27]
ML_FSDATA[28]
ML_FSDATA[29]
ML_FSDATA[30]
ML_FSDATA[31]
56/62/72HM195
SIGNAL (ML DDR SDRAM)
SH.NO.
508



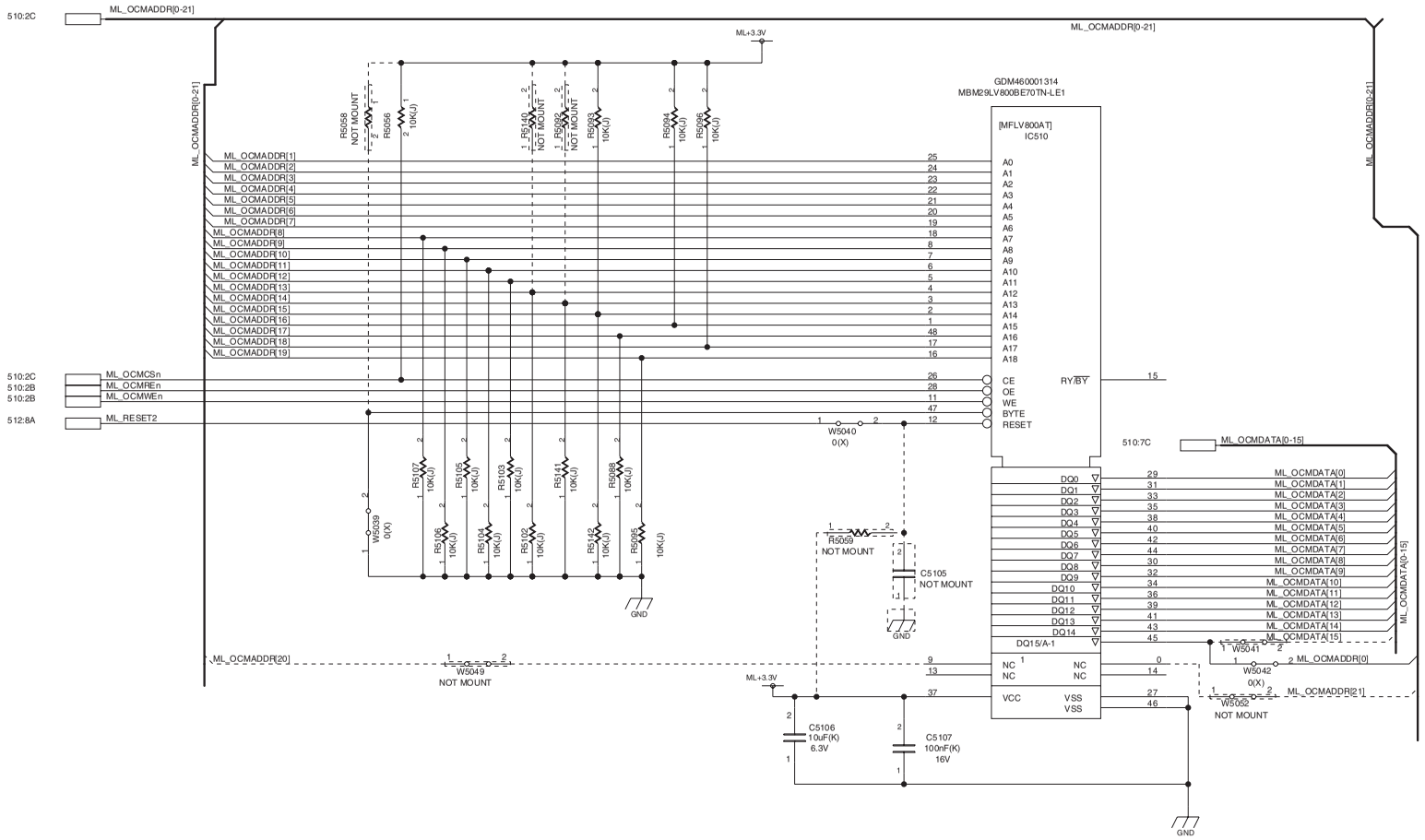
56/62/72HM195
SIGNAL (ML DDR TERMINATION)

SH.NO.
509



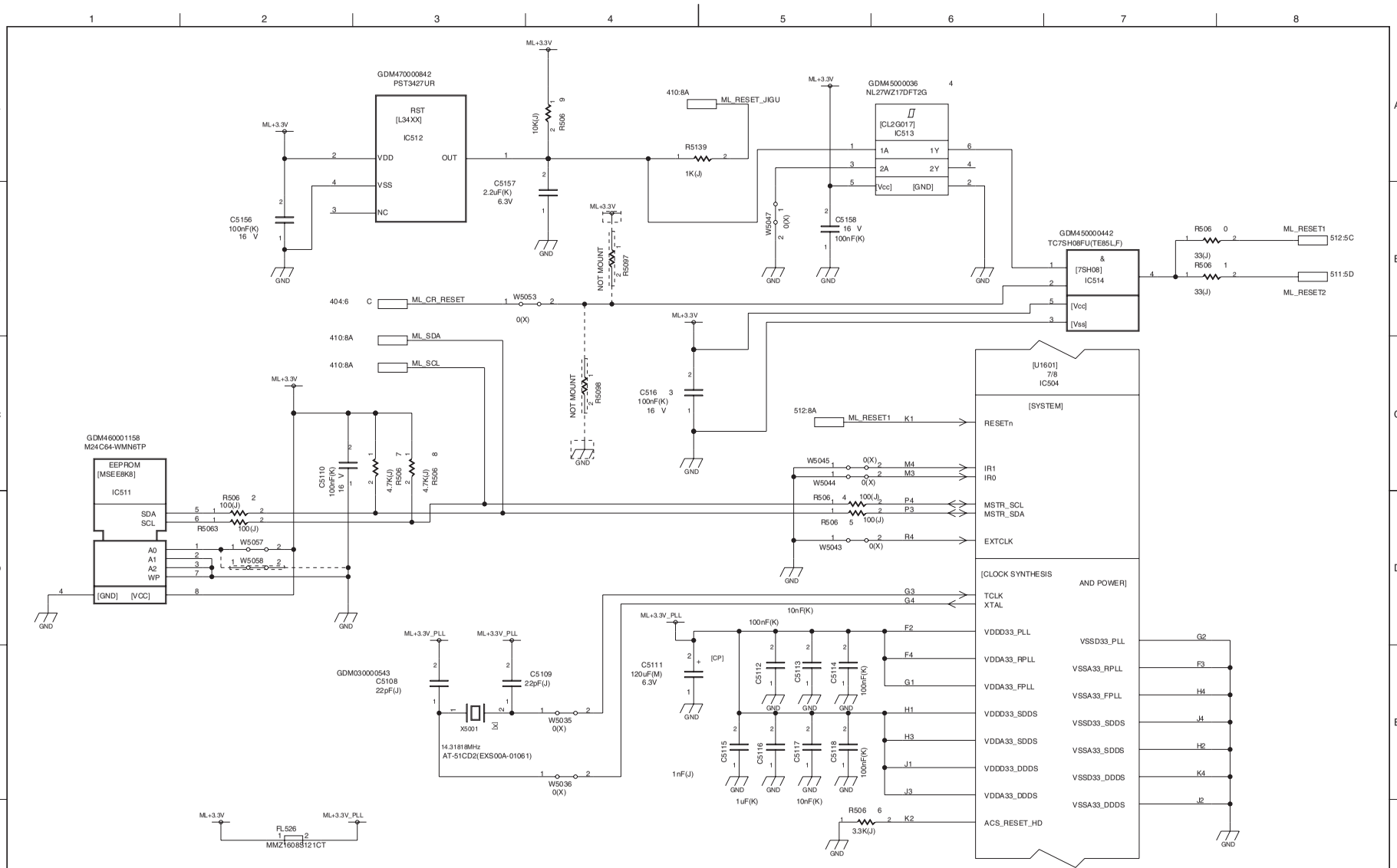
56/62/72HM195
SIGNAL (ML OCM PORT)

SH.NO.
510



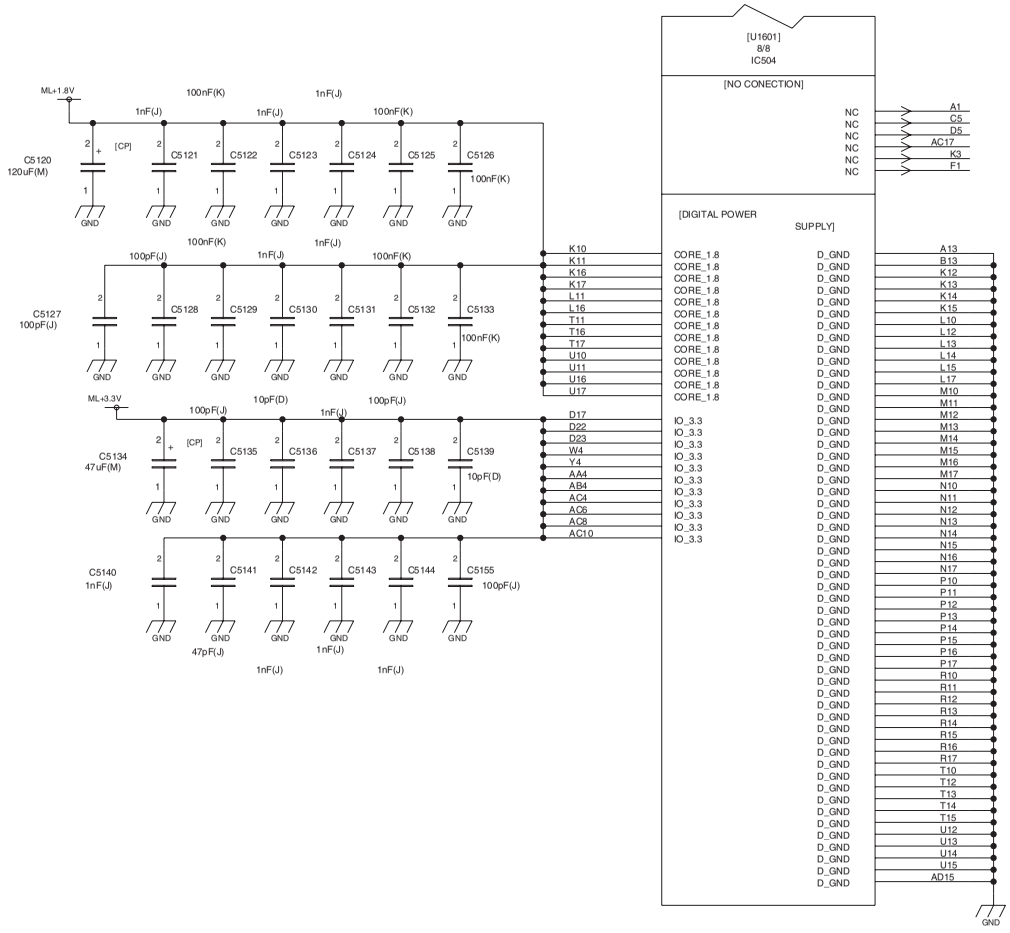
56/62/72HM195
SIGNAL (ML FLASH)

SH.NO.
511



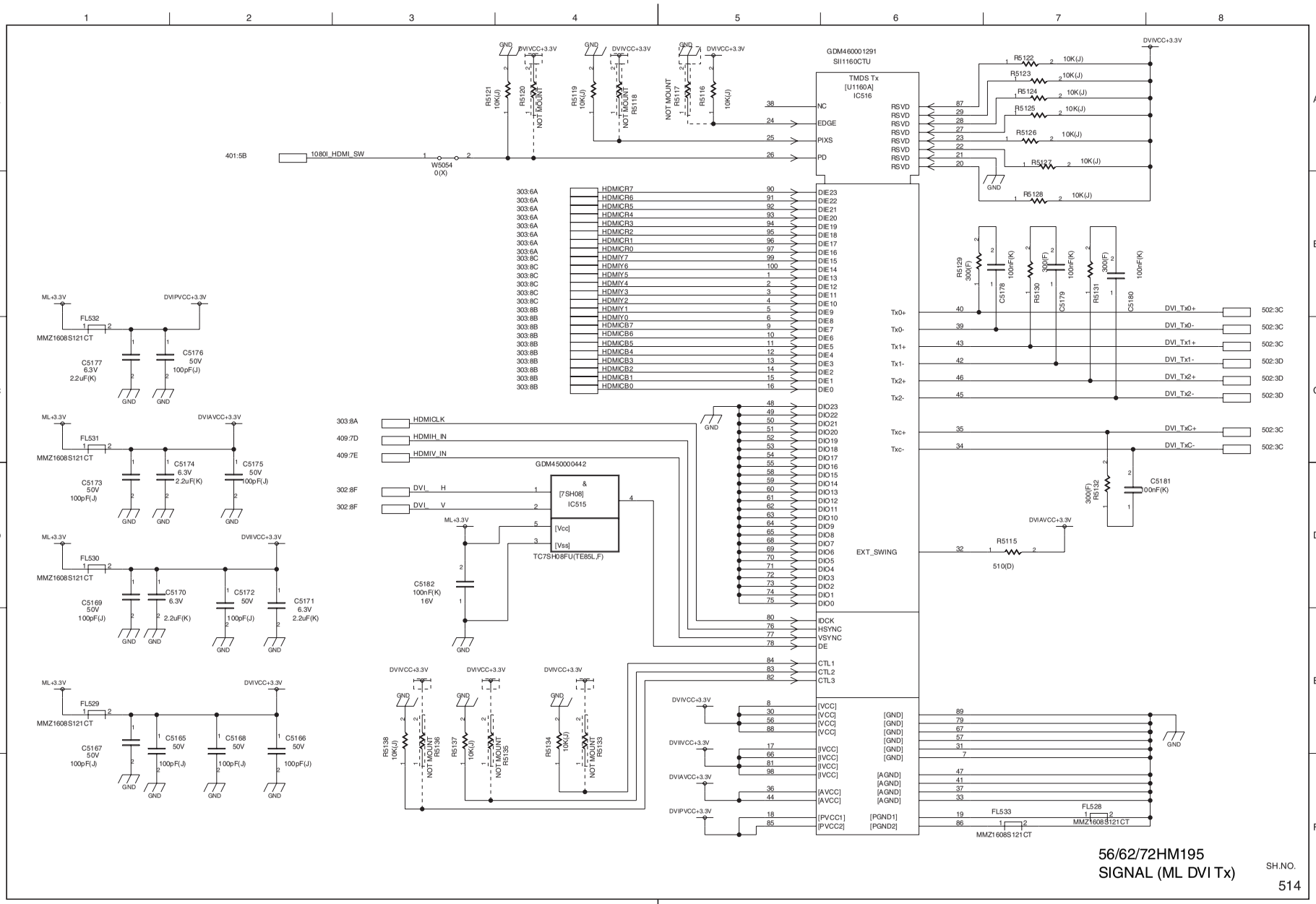
56/62/72HM195
SIGNAL (ML SYSTEM CLK)

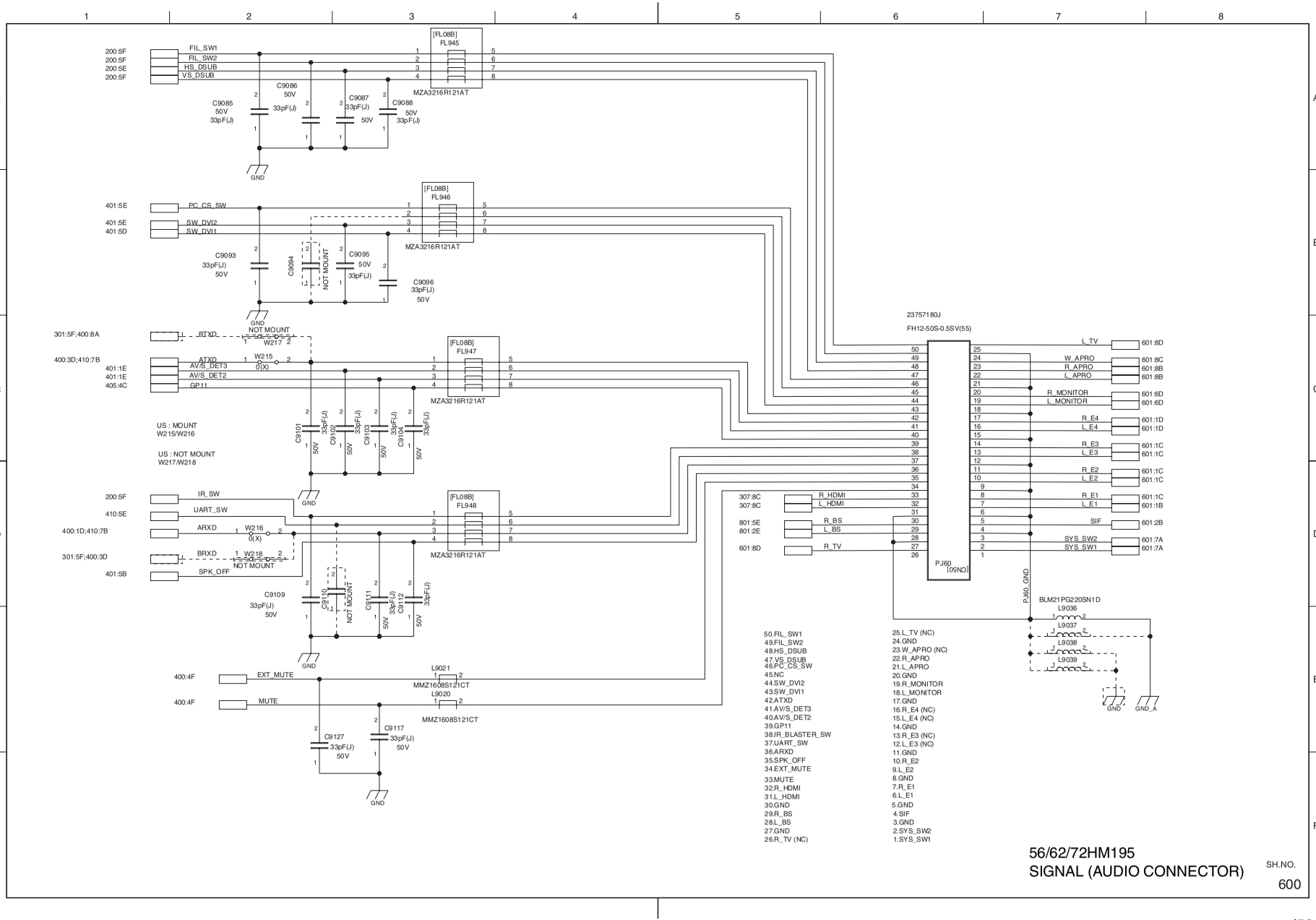
SH.NO.
512



56/62/72HM195
SIGNAL (ML POWER & GND)

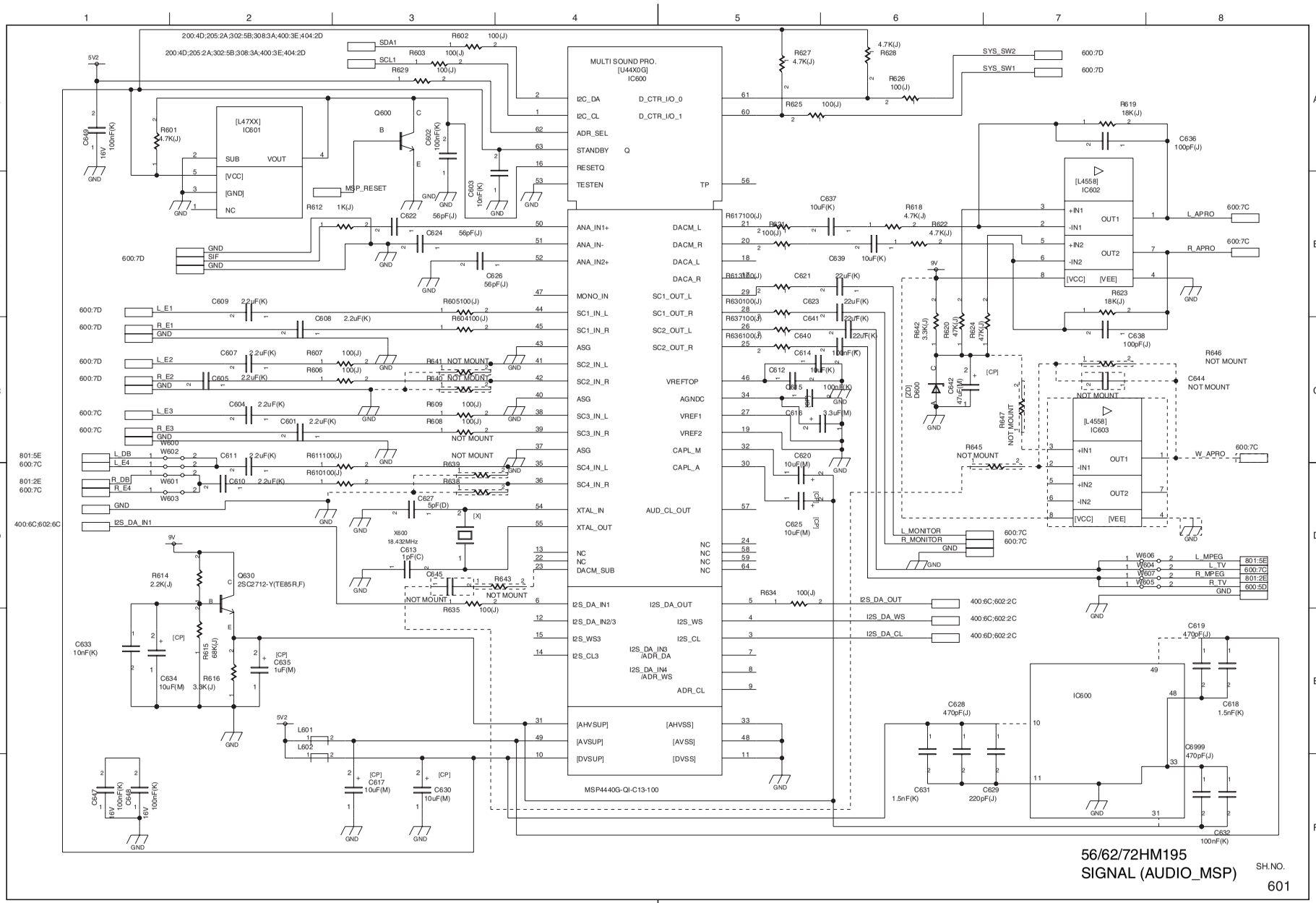
SH.NO.
513

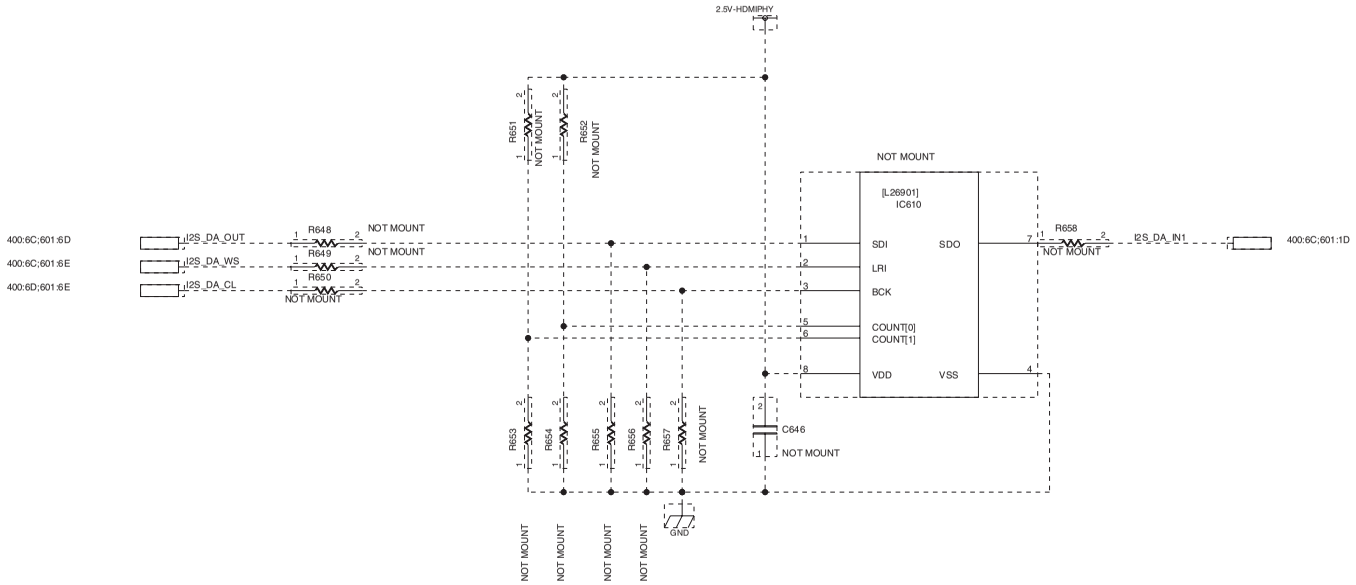

GDM460001291
SII1160CTU
TMDS Tx
[U1160A]
IC516
GDM450000442
TC7SH08FU(TE85L,F)
1080I_HDMI_SW
W5054
0(X)
HDMICLK
HDMIH_IN
HDMIV_IN
DVI_ H
DVI_ V
EXT_SWING
510(D)
DVI_Tx0+
DVI_Tx0-
DVI_Tx1+
DVI_Tx1-
DVI_Tx2+
DVI_Tx2-
DVI_TxC+
DVI_TxC-
MMZ1608S121CT
FL528
FL529
FL530
FL531
FL532
FL533
56/62/72HM195
SIGNAL (ML DVI Tx)
SH.NO.
514



56/62/72HM195
SIGNAL (AUDIO CONNECTOR)

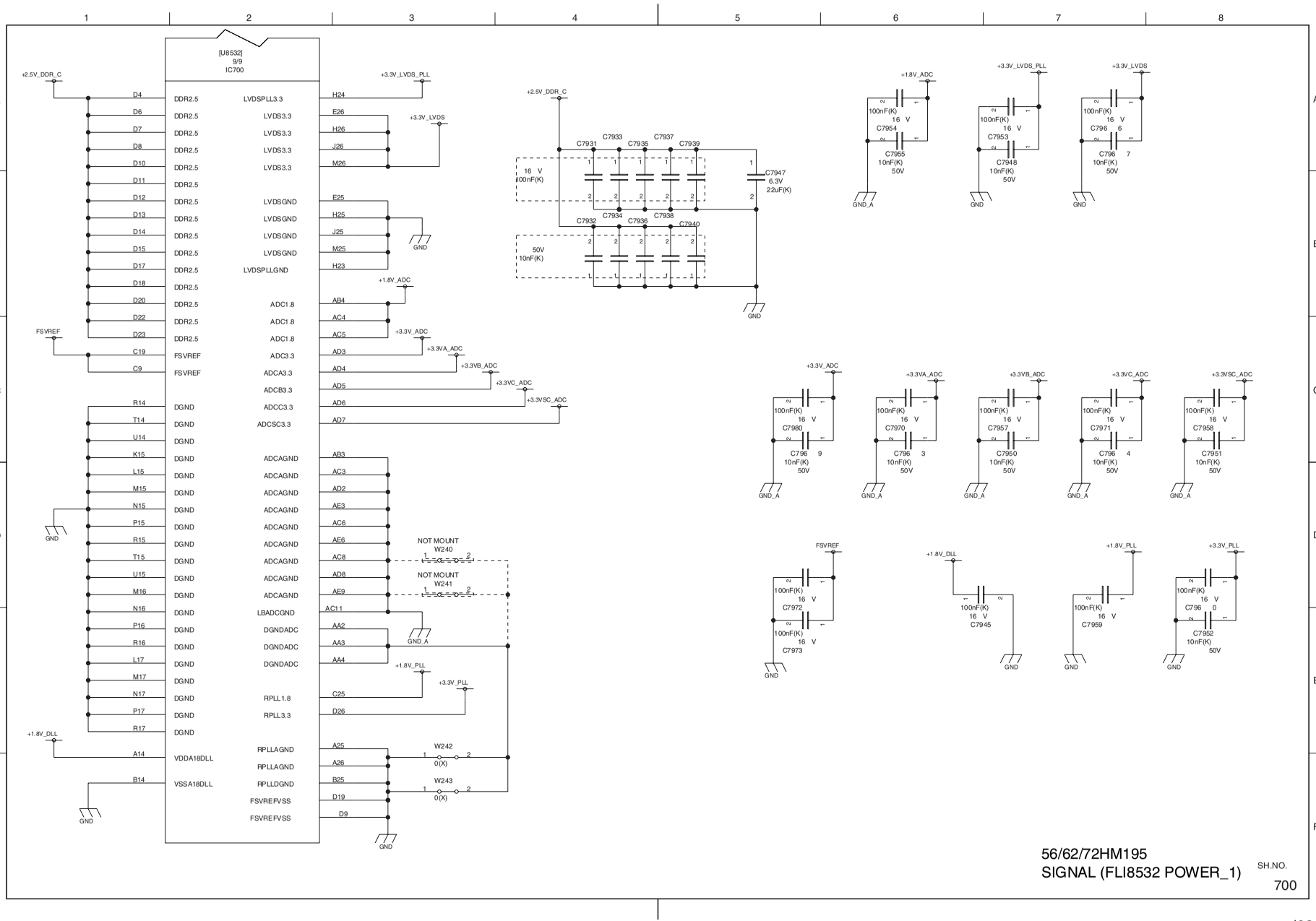
SH.NO.
600


MULTI SOUND PRO.
[U44X0G]
IC600
MSP4440G-QI-C13-100
[L47XX]
IC601
[L4558]
IC602
[L4558]
IC603
Q600
Q630
2SC2712-Y(TE85R,F)
MSP_RESET
SDA1
SCL1
SYS_SW2
SYS_SW1
L_E1
R_E1
L_E2
R_E2
L_E3
R_E3
L_DB
L_E4
R_DB
R_E4
I2S_DA_IN1
L_MONITOR
R_MONITOR
L_APRO
R_APRO
W_APRO
L_MPEG
L_TV
R_MPEG
R_TV
I2S_DA_OUT
I2S_DA_WS
I2S_DA_CL
X600
18.432MHz
NOT MOUNT
56/62/72HM195
SIGNAL (AUDIO_MSP)
SH.NO.
601



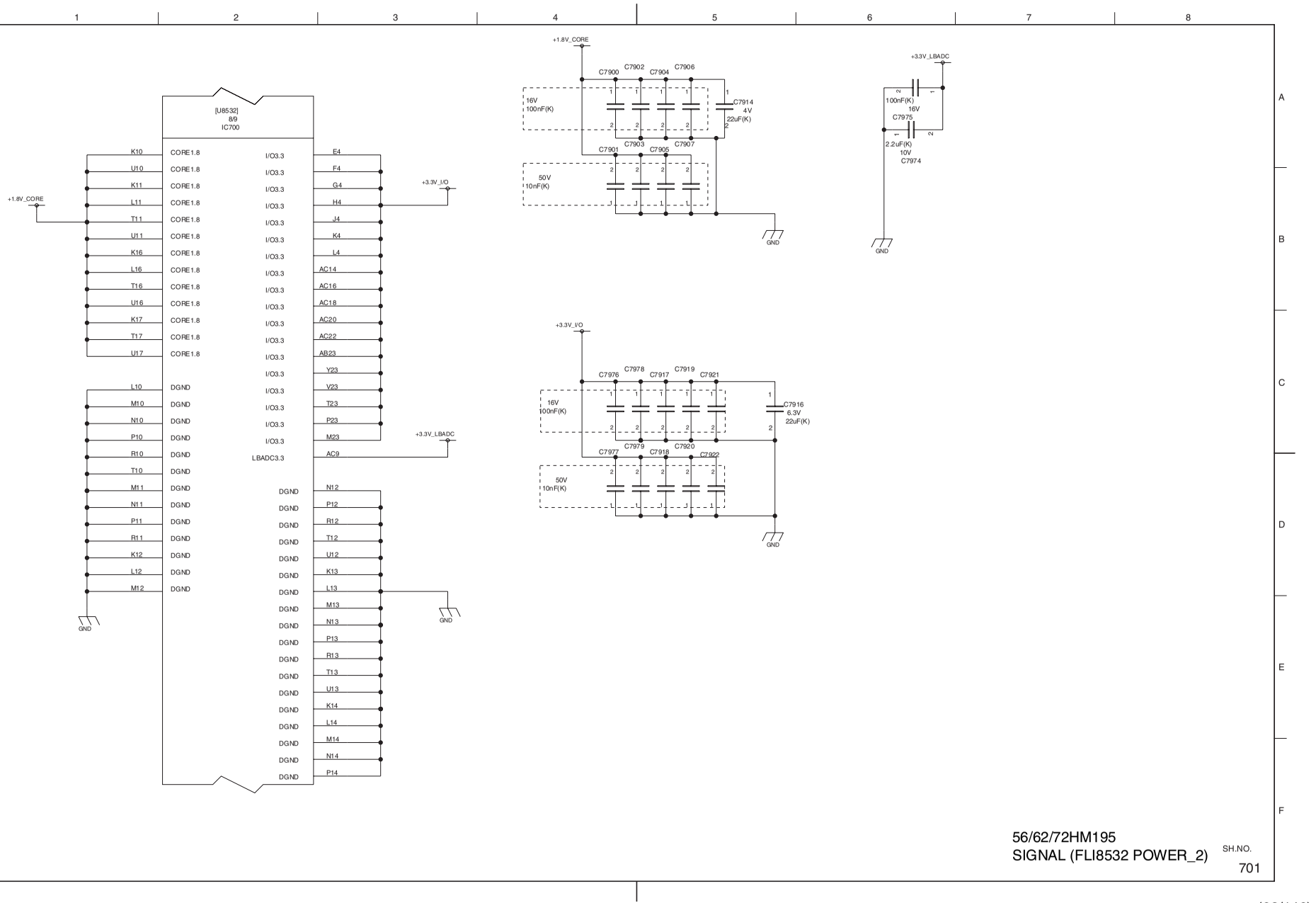
56/62/72HM195
SIGNAL (AUDIO_DELAY)

SH.NO.
602



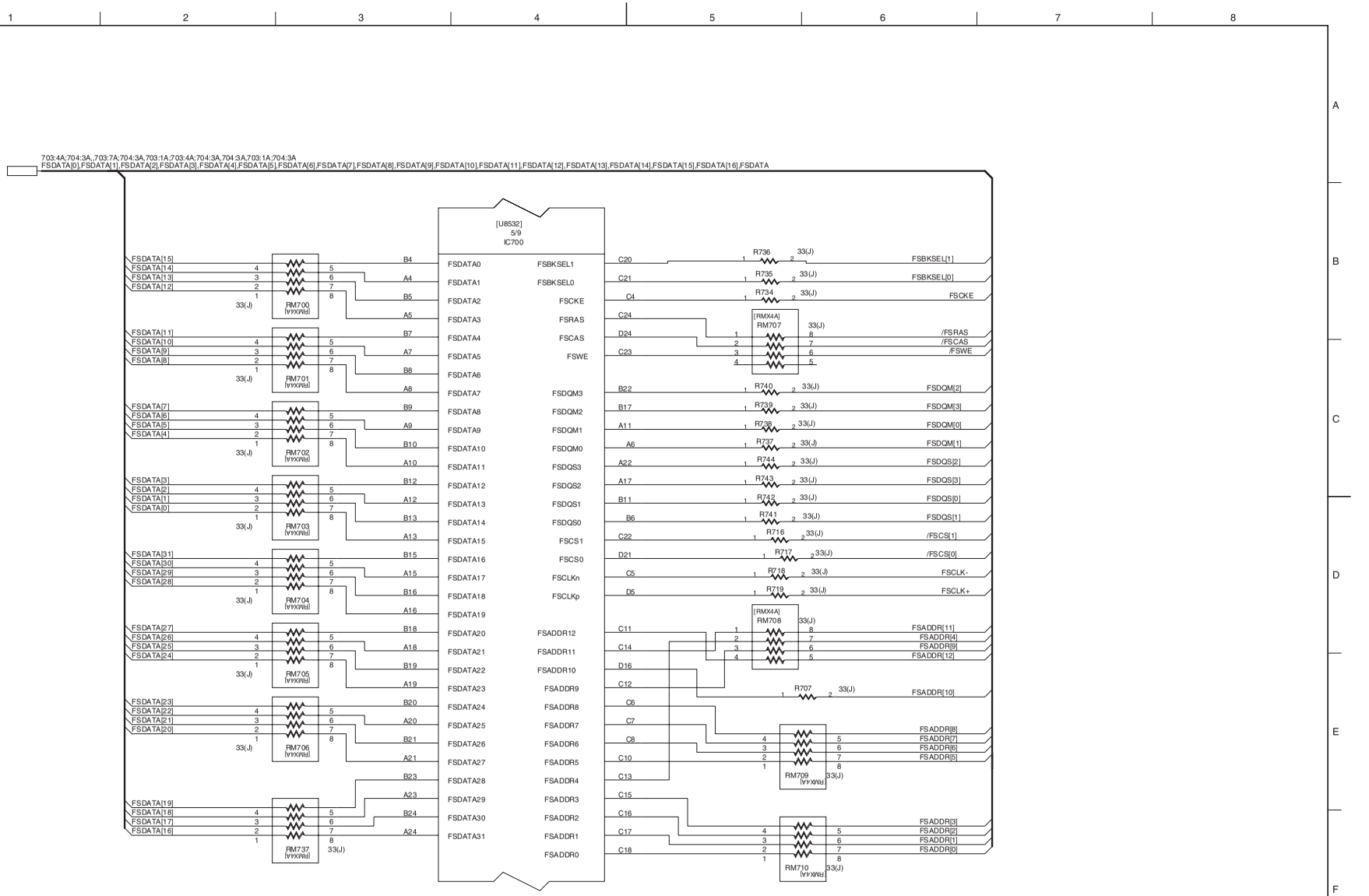
56/62/72HM195
SIGNAL (FLI8532 POWER_1)

SH.NO.
700



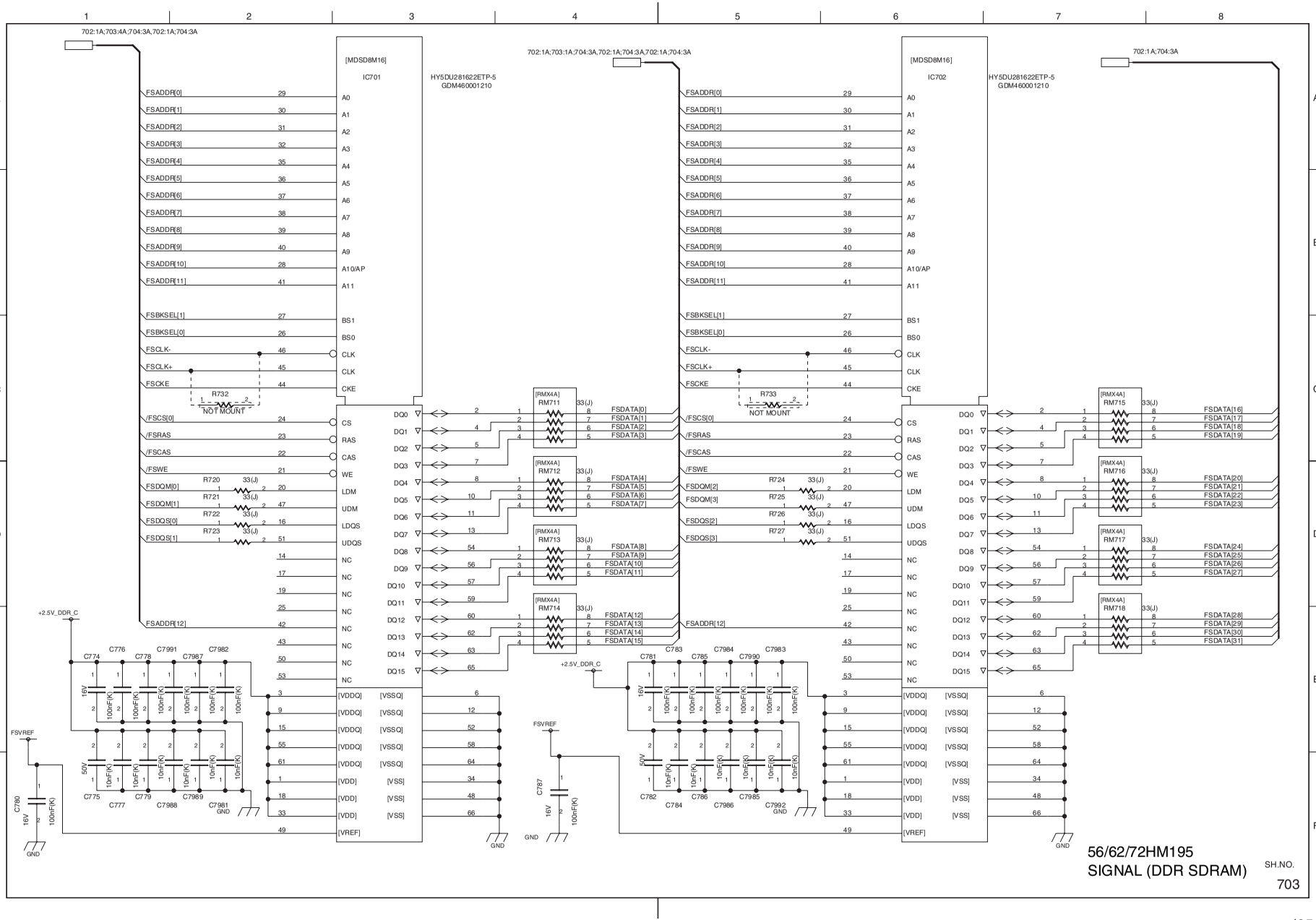
56/62/72HM195
SIGNAL (FLI8532 POWER_2)

SH.NO.
701



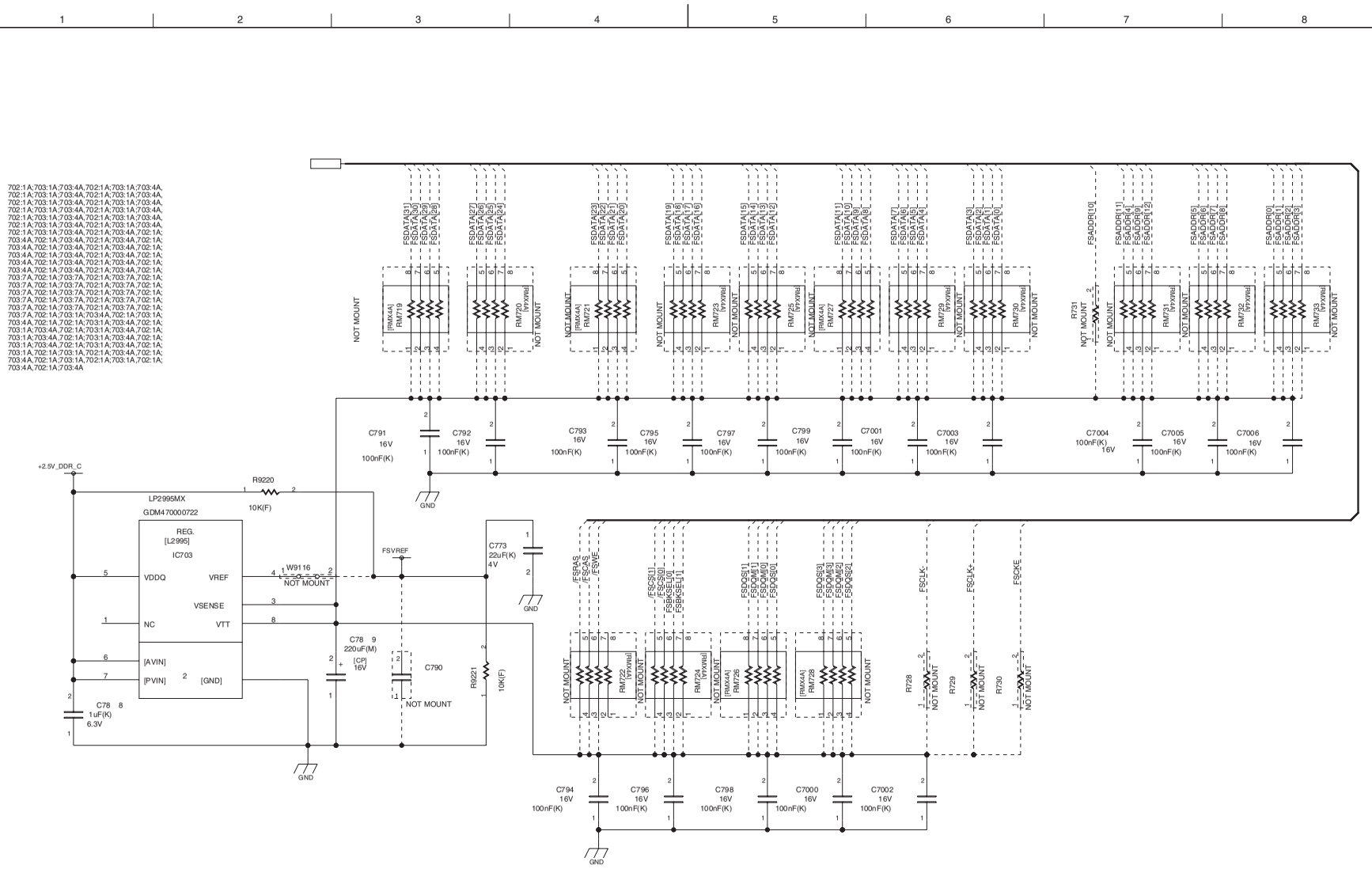
56/62/72HM195
SIGNAL (FLI8532 DDR I/F)

SH.NO.
702



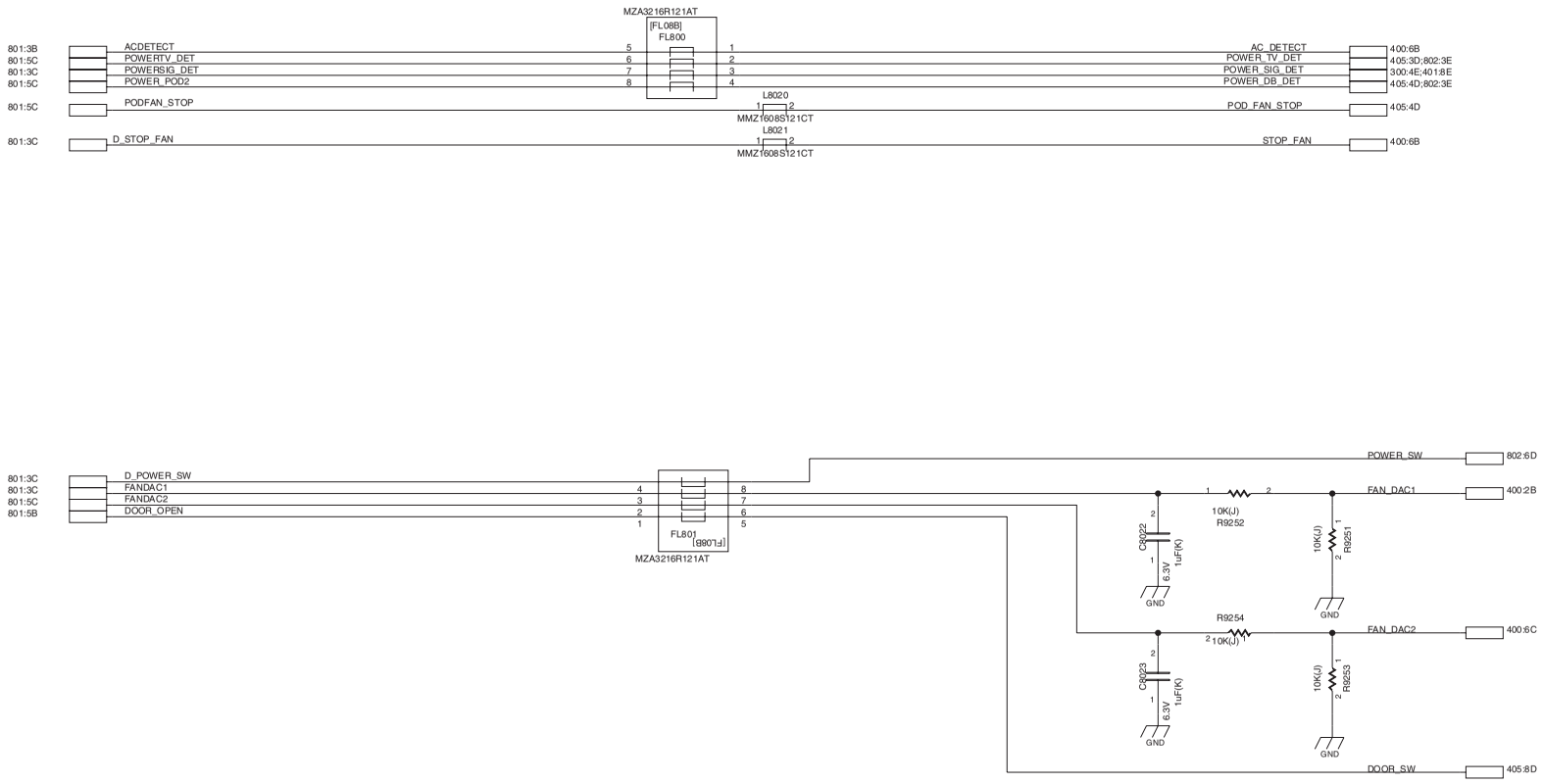
56/62/72HM195
SIGNAL (DDR SDRAM)

SH.NO.
703



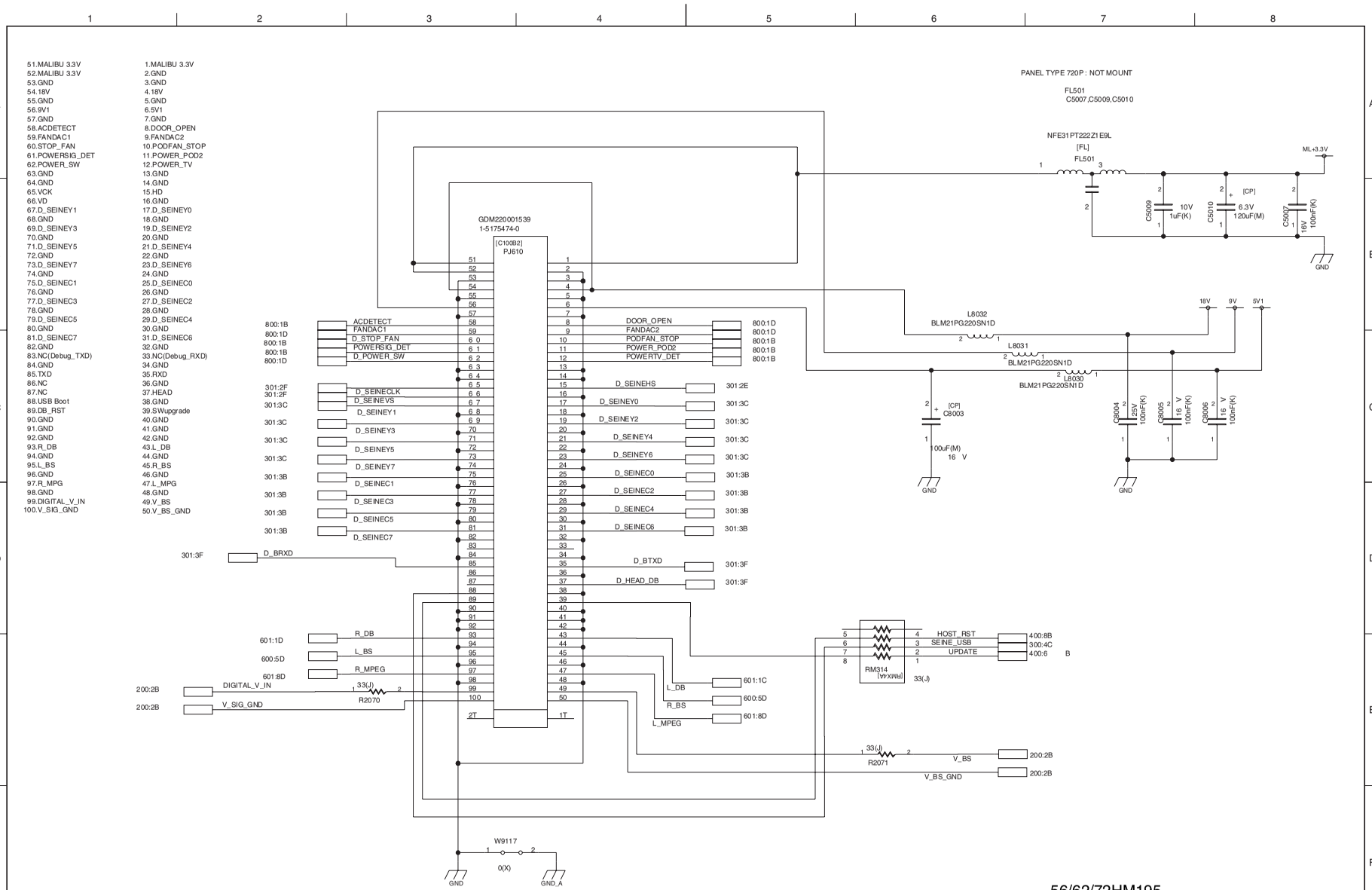
56/62/72HM195
SIGNAL (DDR TERMINATION)

SH.NO.
704



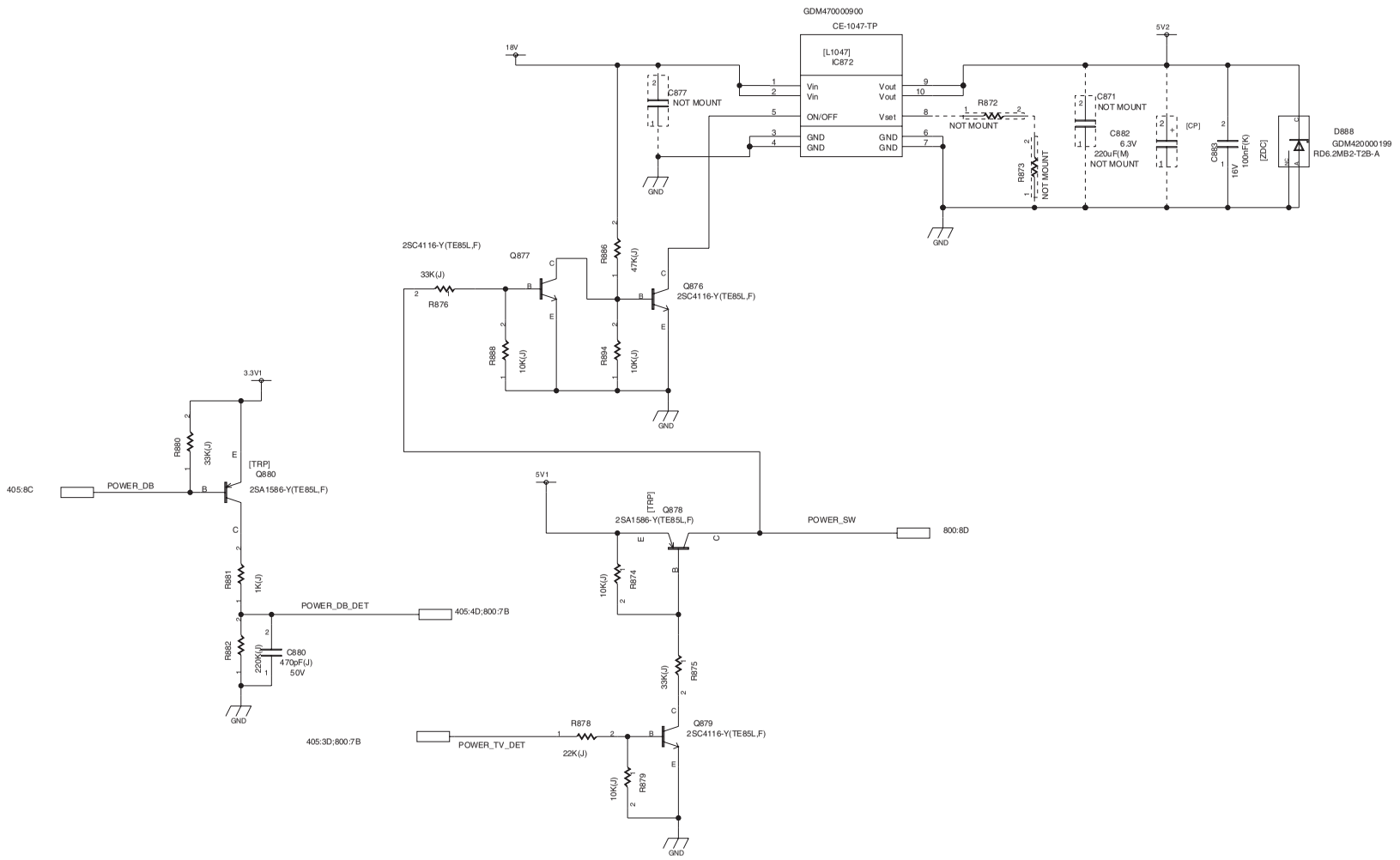
56/62/72HM195
SIGNAL (POWER I/F)

SH.NO.
800



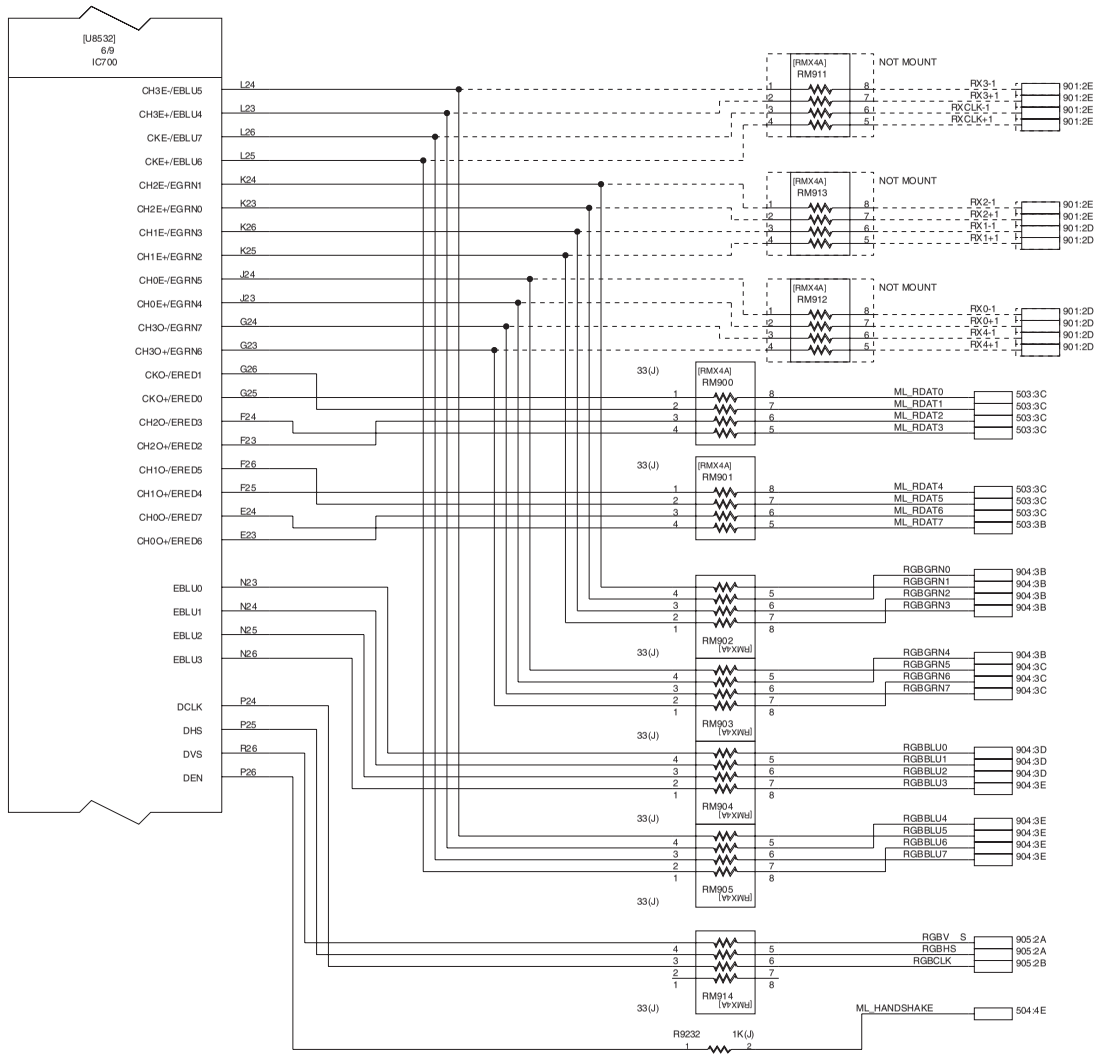
56/62/72HM195
SIGNAL (DIGITAL CONNECTOR)

SH.NO.
801



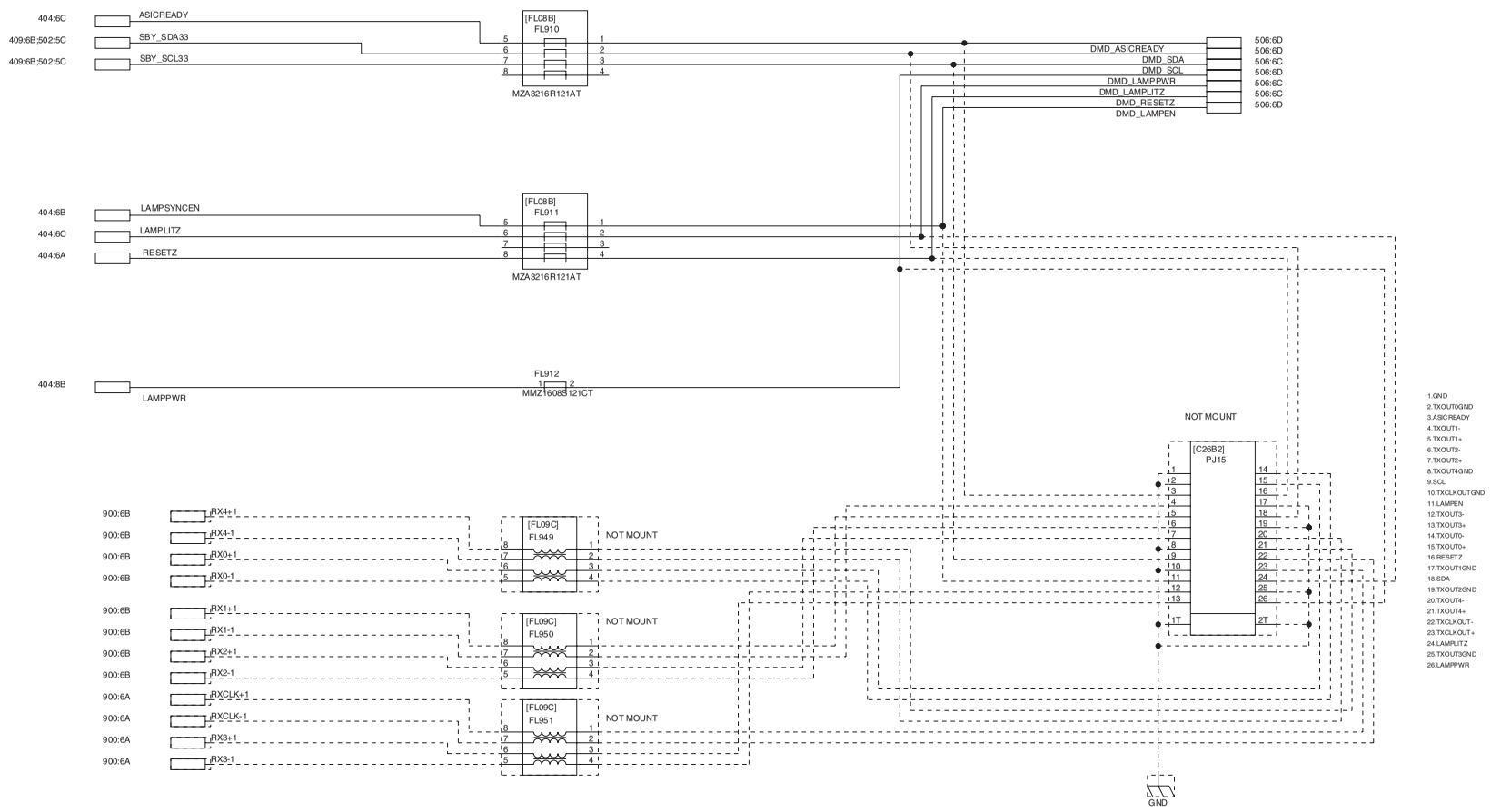
56/62/72HM195
SIGNAL (DC/DC_CONVERTER)

SH.NO.
802



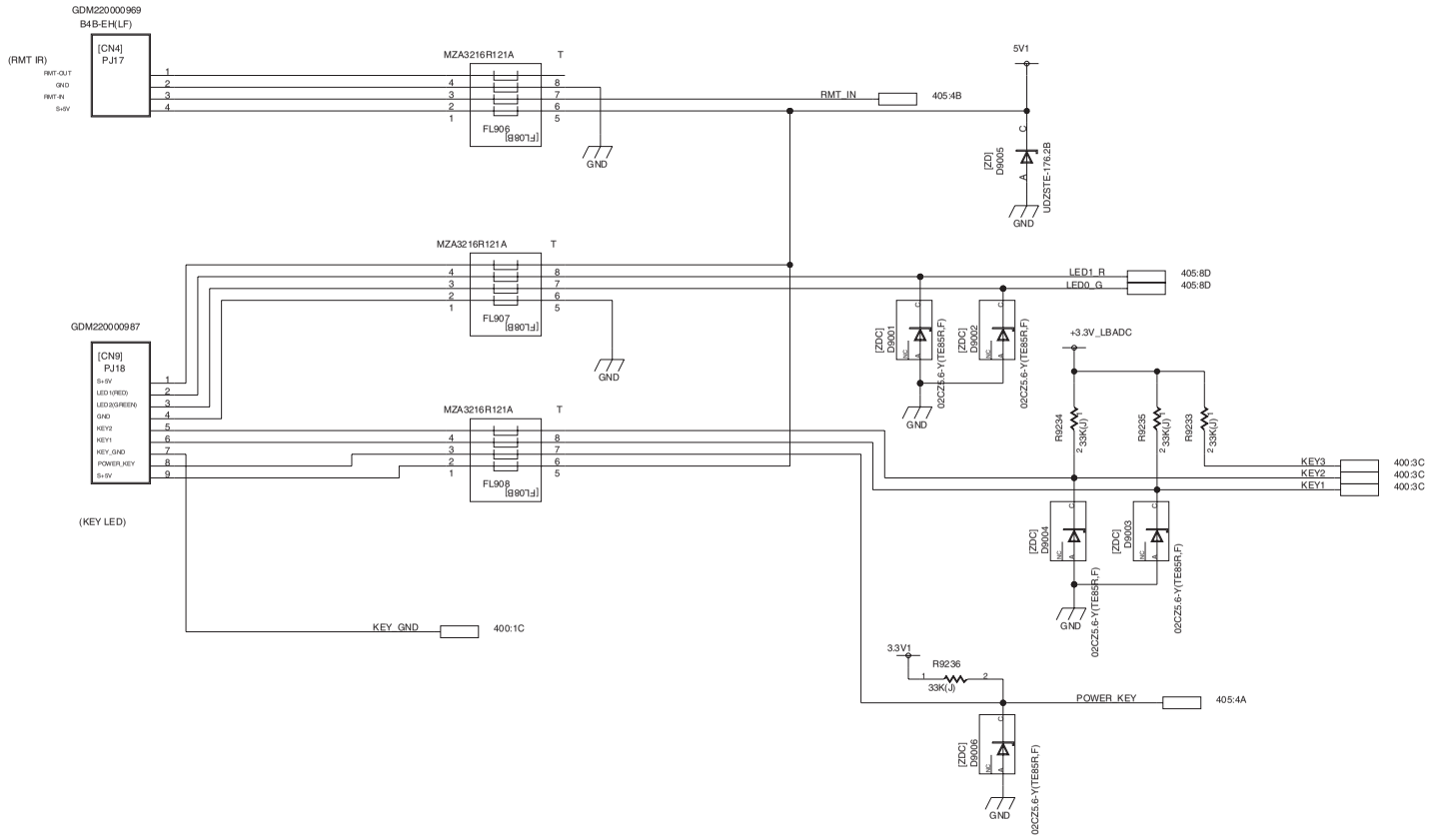
56/62/72HM195
SIGNAL (FLI8532 LVDS_OUT)

SH.NO.
900



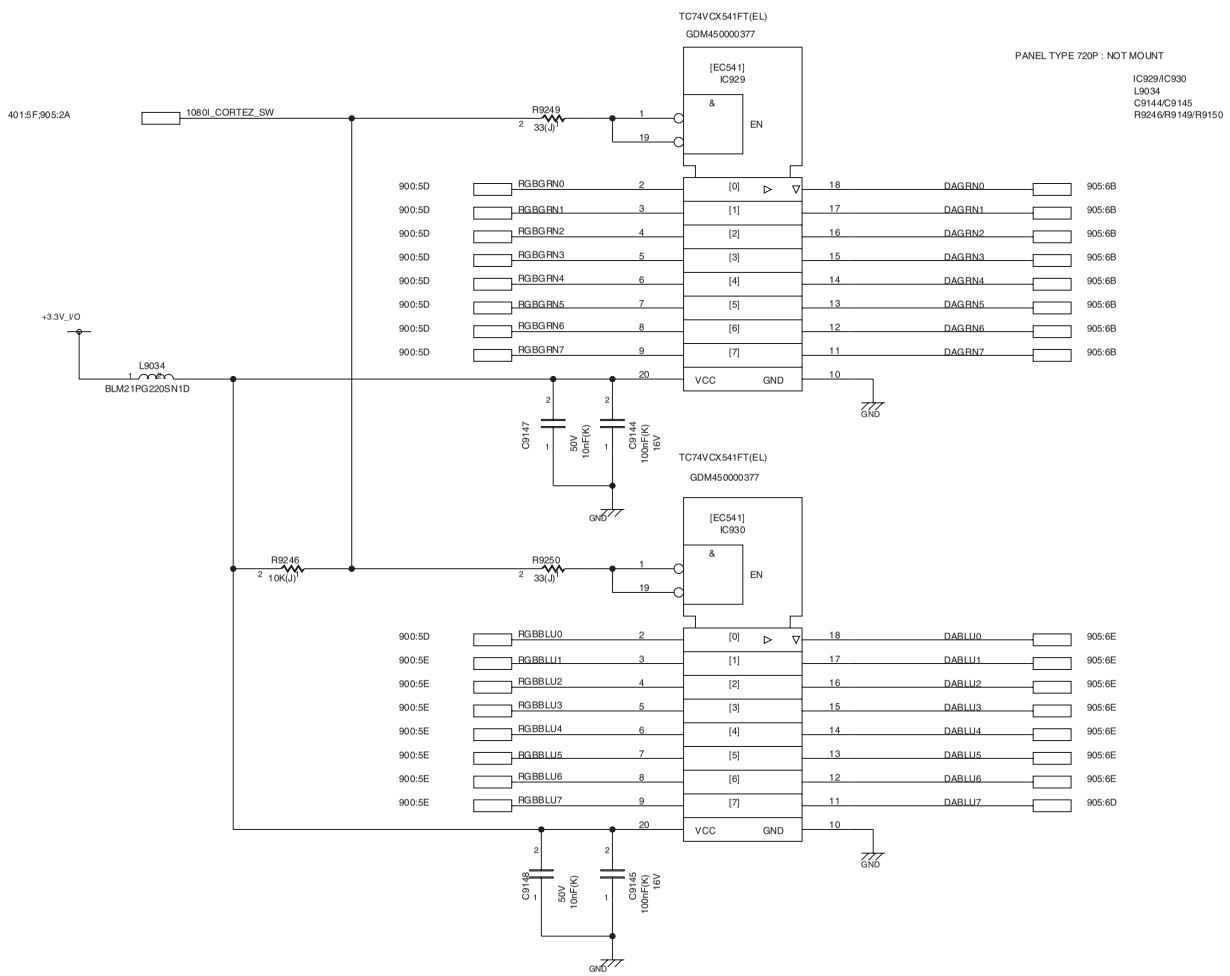
56/62/72HM195
SIGNAL (MDR CONNECTOR)

SH.NO.
901



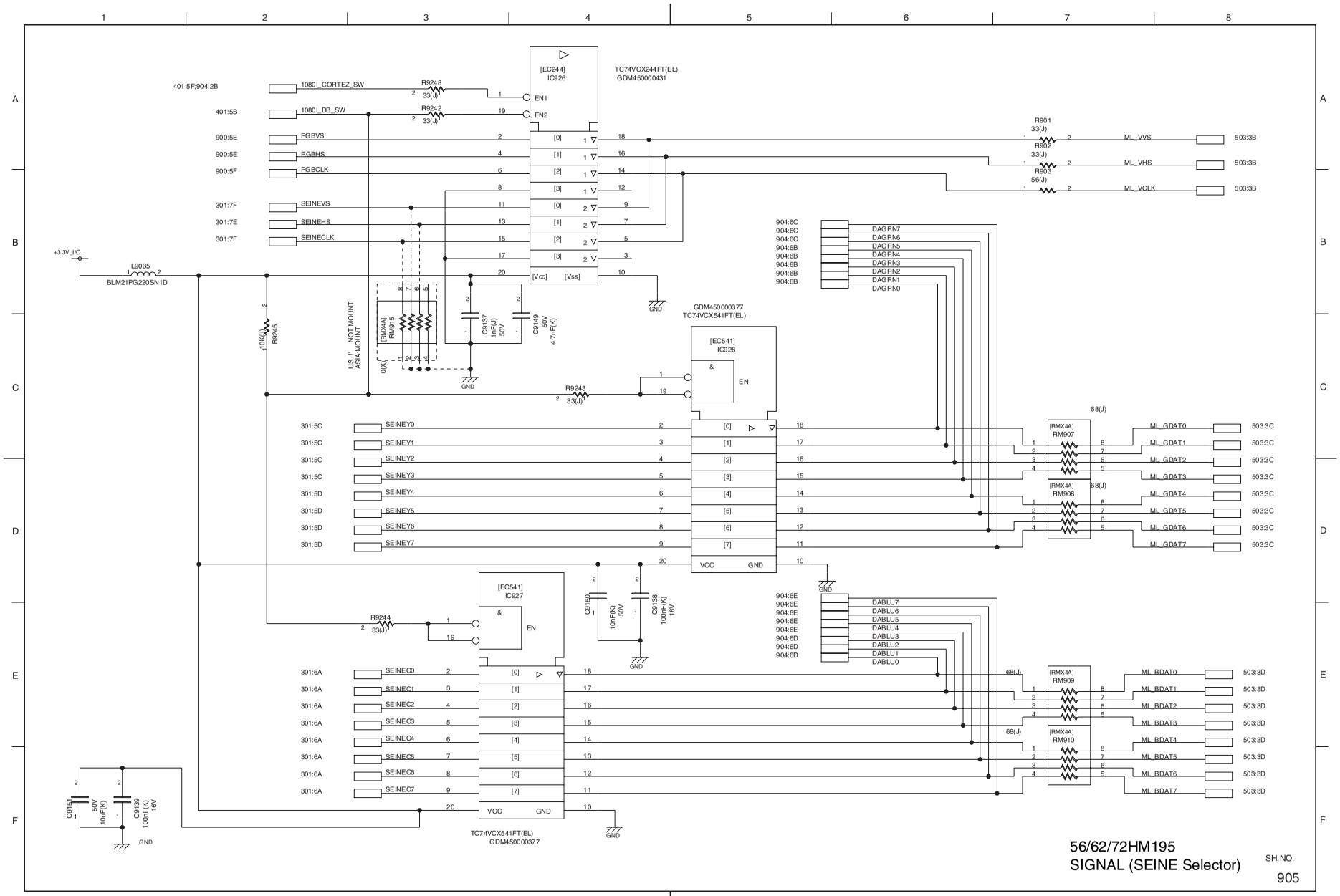
56/62/72HM195
SIGNAL (RMT IR & KEY LED Connector)

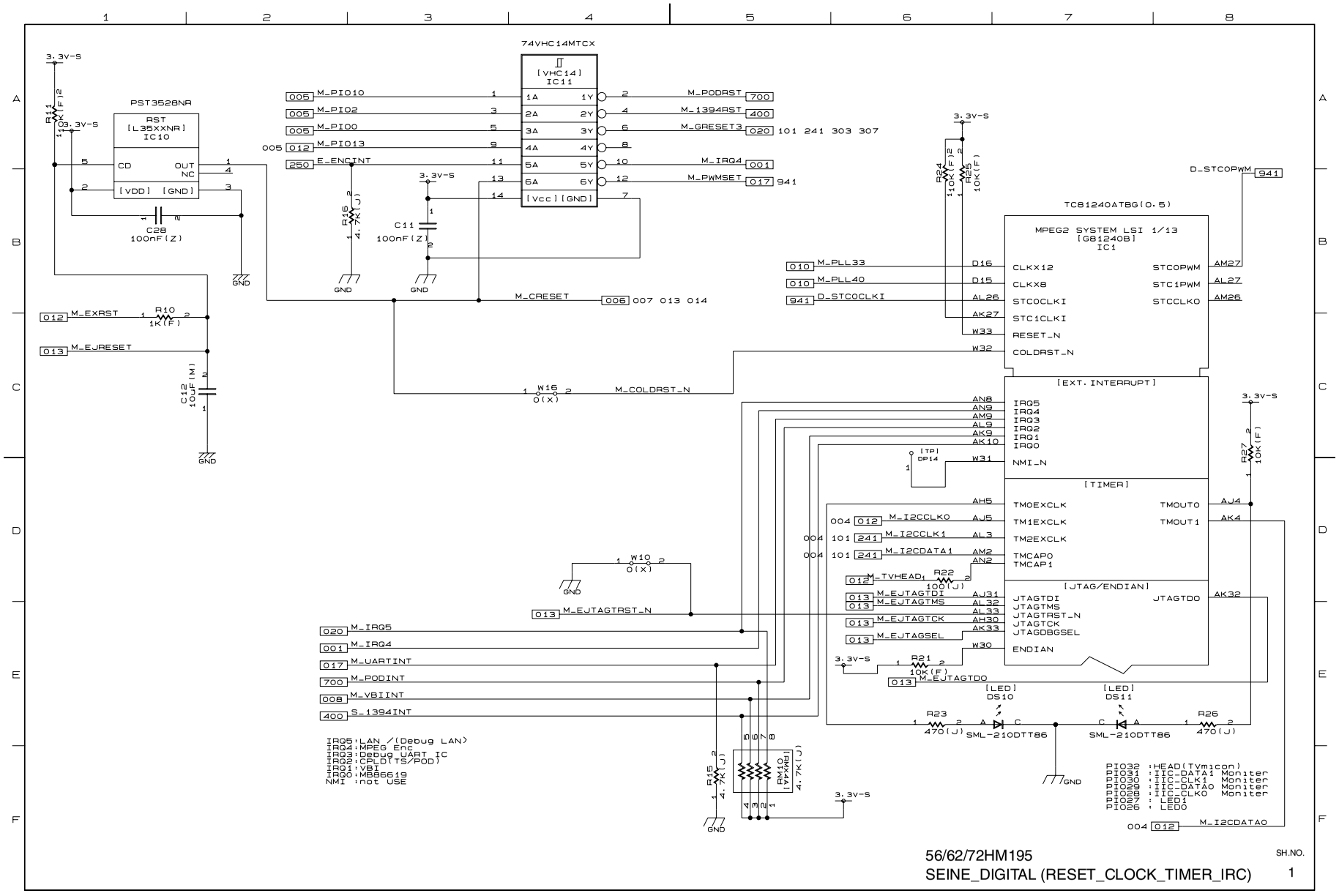
SH.NO.
903

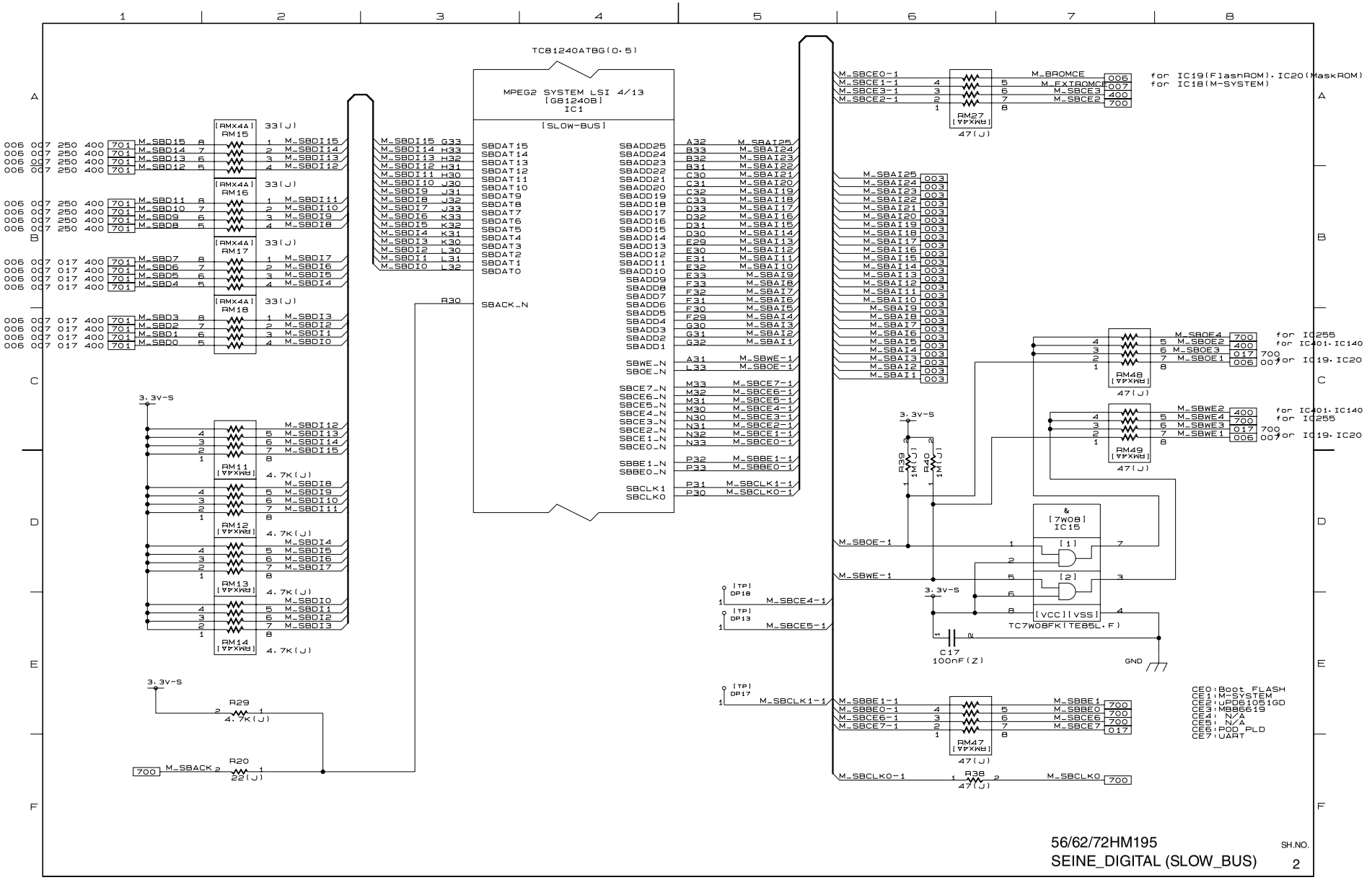


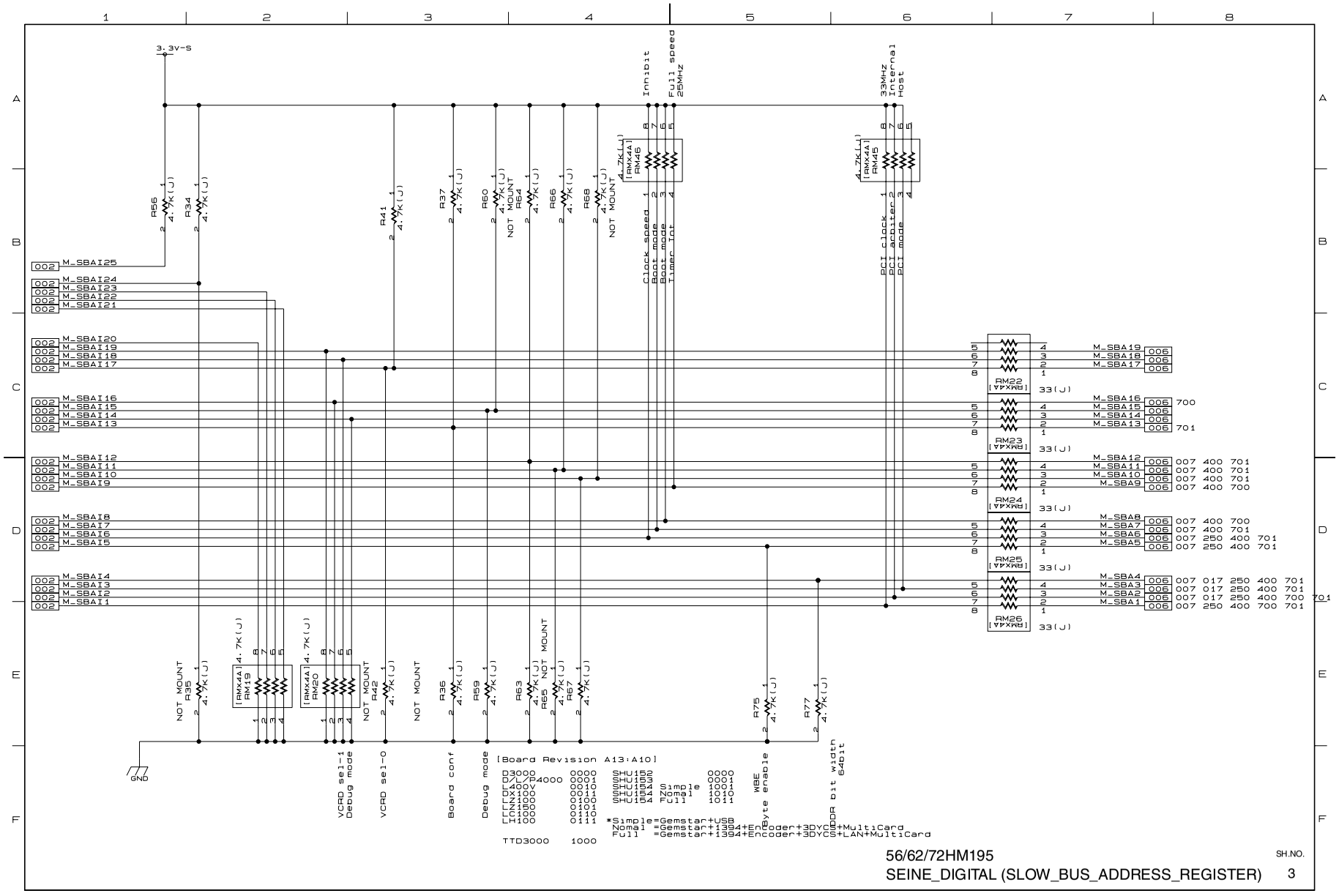
56/62/72HM195
SIGNAL (CORTEZ Selector)

SH.NO.
904


[EC244]
IC926
TC74VCX244FT(EL)
GDM450000431
401:5F,904:2B
1080I_CORTEZ_SW
R9248
33(J)
401:5B
1080I_DB_SW
R9242
33(J)
EN1
EN2
900:5E
RGBVS
900:5E
RGBHS
900:5F
RGBCLK
301:7F
SEINEVS
301:7E
SEINEHS
301:7F
SEINECLK
[0]
[1]
[2]
[3]
[Vcc]
[Vss]
R901
33(J)
R902
33(J)
R903
56(J)
ML_VVS
ML_VHS
ML_VCLK
503:3B
+3.3V_I/O
L9035
BLM21PG220SN1D
GND
GDM450000377
TC74VCX541FT(EL)
[EC541]
IC928
&
EN
R9243
33(J)
10K(J)
R9245
US I' NOT MOUNT
ASIA:MOUNT
[RMX4A]
RM915
0(X)
C9137
1nF(J)
50V
C9149
50V
4.7nF(K)
904:6C
904:6C
904:6C
904:6B
904:6B
904:6B
904:6B
904:6B
DAGRN7
DAGRN6
DAGRN5
DAGRN4
DAGRN3
DAGRN2
DAGRN1
DAGRN0
301:5C
SEINEY0
301:5C
SEINEY1
301:5C
SEINEY2
301:5C
SEINEY3
301:5D
SEINEY4
301:5D
SEINEY5
301:5D
SEINEY6
301:5D
SEINEY7
[0]
[1]
[2]
[3]
[4]
[5]
[6]
[7]
VCC
GND
68(J)
[RMX4A]
RM907
[RMX4A]
RM908
ML_GDAT0
ML_GDAT1
ML_GDAT2
ML_GDAT3
ML_GDAT4
ML_GDAT5
ML_GDAT6
ML_GDAT7
503:3C
[EC541]
IC927
R9244
33(J)
C9150
10nF(K)
50V
C9138
100nF(K)
16V
904:6E
904:6E
904:6E
904:6E
904:6E
904:6D
904:6D
904:6D
DABLU7
DABLU6
DABLU5
DABLU4
DABLU3
DABLU2
DABLU1
DABLU0
301:6A
SEINEC0
301:6A
SEINEC1
301:6A
SEINEC2
301:6A
SEINEC3
301:6A
SEINEC4
301:6A
SEINEC5
301:6A
SEINEC6
301:6A
SEINEC7
[RMX4A]
RM909
[RMX4A]
RM910
ML_BDAT0
ML_BDAT1
ML_BDAT2
ML_BDAT3
ML_BDAT4
ML_BDAT5
ML_BDAT6
ML_BDAT7
503:3D
C9151
50V
10nF(K)
C9139
100nF(K)
16V
TC74VCX541FT(EL)
GDM450000377
56/62/72HM195
SIGNAL (SEINE Selector)
SH.NO.
905


74VHC14MTCX
[VHC14]
IC11
PST3528NR
RST
[L35XXNR]
IC10
TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 1/13
[G81240B]
IC1
[EXT.INTERRUPT]
[TIMER]
[JTAG/ENDIAN]
M_PIO10
M_PIO02
M_PIO00
M_PIO13
E_ENCINT
M_PODRST
M_1394RST
M_GRESET3
M_IRQ4
M_PWMSET
M_CRESET
M_COLDRST_N
M_EXRST
M_EJRESET
M_PLL33
M_PLL40
D_STC0CLKI
D_STC0PWM
M_I2CCLK0
M_I2CCLK1
M_I2CDATA1
M_TVHEAD
M_EJTAGTDI
M_EJTAGTMS
M_EJTAGTCK
M_EJTAGSEL
M_EJTAGTDO
M_EJTAGTRST_N
M_IRQ5
M_IRQ4
M_UARTINT
M_PODINT
M_VBIINT
S_1394INT
IRQ5:LAN /(Debug LAN)
IRQ4:MPEG Enc
IRQ3:Debug UART IC
IRQ2:CPLD(TS/POD)
IRQ1:VBI
IRQ0:MB86619
NMI :not USE
PIO32 :HEAD(TVmicon)
PIO31 :IIC_DATA1 Monitor
PIO30 :IIC_CLK1 Monitor
PIO29 :IIC_DATA0 Monitor
PIO28 :IIC_CLK0 Monitor
PIO27 : LED1
PIO26 : LED0
M_I2CDATA0
[LED] DS10
[LED] DS11
SML-210DTT86
56/62/72HM195
SEINE_DIGITAL (RESET_CLOCK_TIMER_IRC)
SH.NO.
1

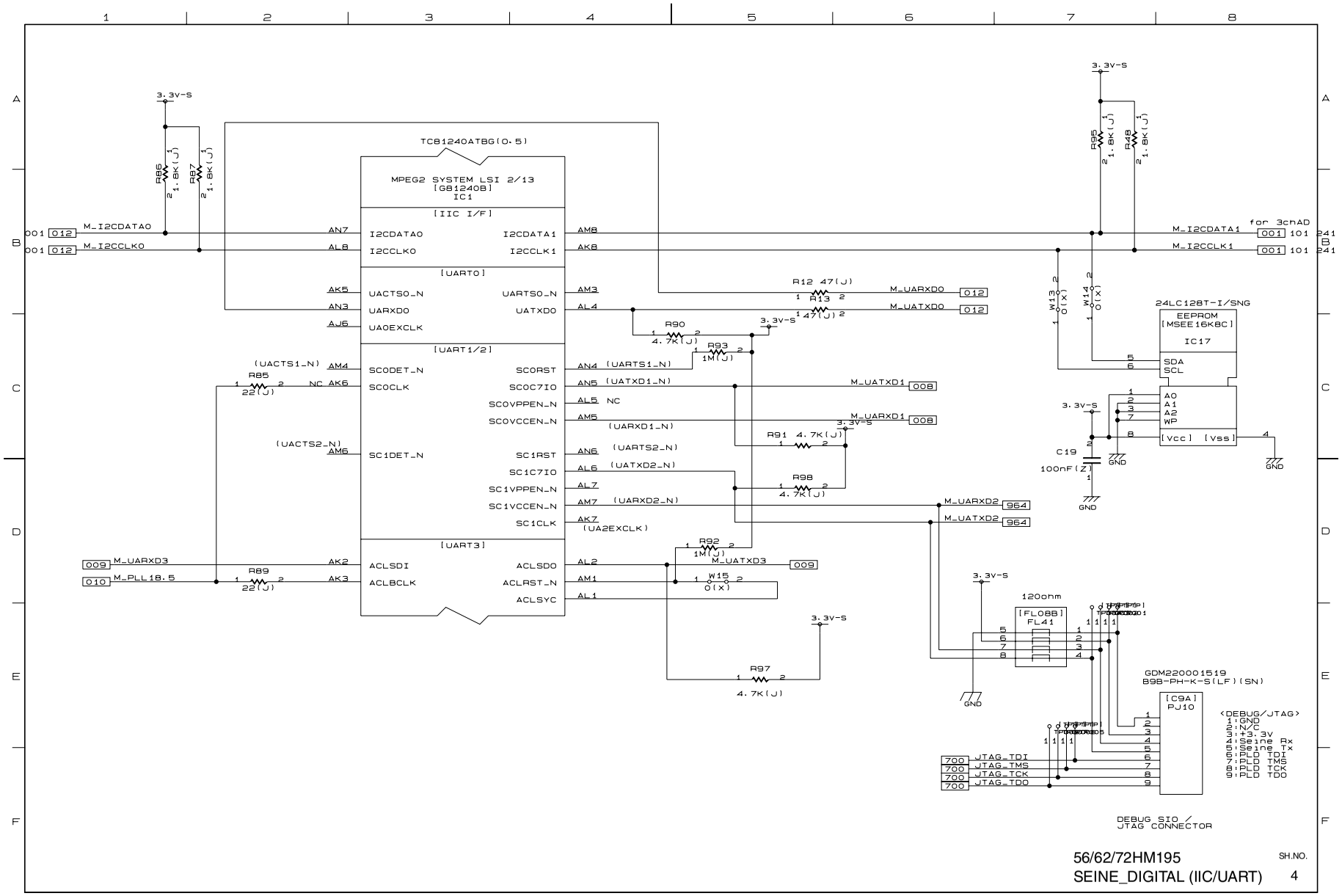

TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 4/13
[G81240B]
IC1
[SLOW-BUS]
SBACK_N
R30
M_SBDI15 G33
M_SBDI14 H33
M_SBDI13 H32
M_SBDI12 H31
M_SBDI11 H30
M_SBDI10 J30
M_SBDI9 J31
M_SBDI8 J32
M_SBDI7 J33
M_SBDI6 K33
M_SBDI5 K32
M_SBDI4 K31
M_SBDI3 K30
M_SBDI2 L30
M_SBDI1 L31
M_SBDI0 L32
SBDAT15
SBDAT14
SBDAT13
SBDAT12
SBDAT11
SBDAT10
SBDAT9
SBDAT8
SBDAT7
SBDAT6
SBDAT5
SBDAT4
SBDAT3
SBDAT2
SBDAT1
SBDAT0
SBADD25 A32 M_SBAI25
SBADD24 B33 M_SBAI24
SBADD23 B32 M_SBAI23
SBADD22 B31 M_SBAI22
SBADD21 C30 M_SBAI21
SBADD20 C31 M_SBAI20
SBADD19 C32 M_SBAI19
SBADD18 C33 M_SBAI18
SBADD17 D33 M_SBAI17
SBADD16 D32 M_SBAI16
SBADD15 D31 M_SBAI15
SBADD14 D30 M_SBAI14
SBADD13 E29 M_SBAI13
SBADD12 E30 M_SBAI12
SBADD11 E31 M_SBAI11
SBADD10 E32 M_SBAI10
SBADD9 E33 M_SBAI9
SBADD8 F33 M_SBAI8
SBADD7 F32 M_SBAI7
SBADD6 F31 M_SBAI6
SBADD5 F30 M_SBAI5
SBADD4 F29 M_SBAI4
SBADD3 G30 M_SBAI3
SBADD2 G31 M_SBAI2
SBADD1 G32 M_SBAI1
SBWE_N A31 M_SBWE-1
SBOE_N L33 M_SBOE-1
SBCE7_N M33 M_SBCE7-1
SBCE6_N M32 M_SBCE6-1
SBCE5_N M31 M_SBCE5-1
SBCE4_N M30 M_SBCE4-1
SBCE3_N N30 M_SBCE3-1
SBCE2_N N31 M_SBCE2-1
SBCE1_N N32 M_SBCE1-1
SBCE0_N N33 M_SBCE0-1
SBBE1_N P32 M_SBBE1-1
SBBE0_N P33 M_SBBE0-1
SBCLK1 P31 M_SBCLK1-1
SBCLK0 P30 M_SBCLK0-1
RM15 [RMX4A] 33(J)
RM16 [RMX4A] 33(J)
RM17 [RMX4A] 33(J)
RM18 [RMX4A] 33(J)
M_SBDI15 M_SBDI14 M_SBDI13 M_SBDI12
M_SBDI11 M_SBDI10 M_SBDI9 M_SBDI8
M_SBDI7 M_SBDI6 M_SBDI5 M_SBDI4
M_SBDI3 M_SBDI2 M_SBDI1 M_SBDI0
006 007 250 400 701
006 007 017 400 701
RM1 [RMX4A] 4.7K(J)
RM12 [RMX4A] 4.7K(J)
RM13 [RMX4A] 4.7K(J)
RM14 [RMX4A] 4.7K(J)
3.3V-S
R29 4.7K(J)
R20 22(J)
700 M_SBACK
M_SBCE0-1
M_SBCE1-1
M_SBCE3-1
M_SBCE2-1
RM27 [RMX4A] 47(J)
M_BROMCE 006
M_EXTROMCE 007
M_SBCE3 400
M_SBCE2 700
for IC19(FlashROM). IC20(MaskROM)
for IC18(M-SYSTEM)
M_SBAI25 003
M_SBAI24 003
M_SBAI23 003
M_SBAI22 003
M_SBAI21 003
M_SBAI20 003
M_SBAI19 003
M_SBAI18 003
M_SBAI17 003
M_SBAI16 003
M_SBAI15 003
M_SBAI14 003
M_SBAI13 003
M_SBAI12 003
M_SBAI11 003
M_SBAI10 003
M_SBAI9 003
M_SBAI8 003
M_SBAI7 003
M_SBAI6 003
M_SBAI5 003
M_SBAI4 003
M_SBAI3 003
M_SBAI2 003
M_SBAI1 003
RM48 [RMX4A] 47(J)
M_SBOE4 700
M_SBOE2 400
M_SBOE3 017
M_SBOE1 006
for IC255
for IC401. IC140
700
007 for IC19. IC20
RM49 [RMX4A] 47(J)
M_SBWE2 400
M_SBWE4 700
M_SBWE3 017
M_SBWE1 006
for IC401. IC140
for IC255
700
007 for IC19. IC20
R39 1M(J)
R40 1M(J)
M_SBOE-1
M_SBWE-1
& [7W08] IC15
[1] [2] [VCC] [VSS]
TC7W08FK(TE85L.F)
C17 100nF(Z)
GND
DP18 M_SBCE4-1
DP13 M_SBCE5-1
DP17 M_SBCLK1-1
M_SBBE1-1
M_SBBE0-1
M_SBCE6-1
M_SBCE7-1
RM47 [RMX4A] 47(J)
M_SBBE1 700
M_SBBE0 700
M_SBCE6 700
M_SBCE7 017
M_SBCLK0-1
R38 47(J)
M_SBCLK0 700
CE0:Boot FLASH
CE1:M-SYSTEM
CE2:UPD61051GD
CE3:MB86619
CE4: N/A
CE5: N/A
CE6:POD PLD
CE7:UART
56/62/72HM195
SEINE_DIGITAL (SLOW_BUS)
SH.NO.
2

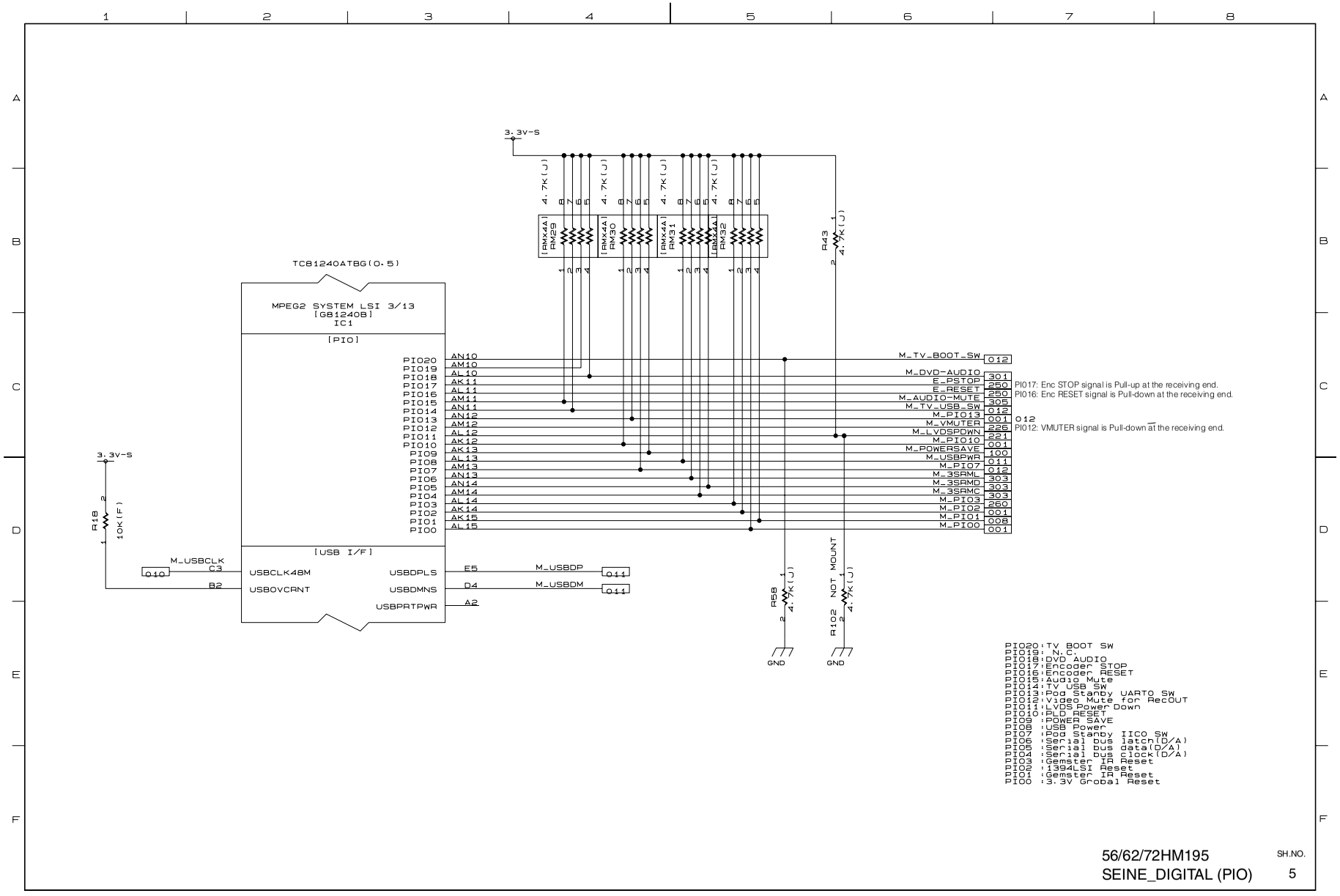


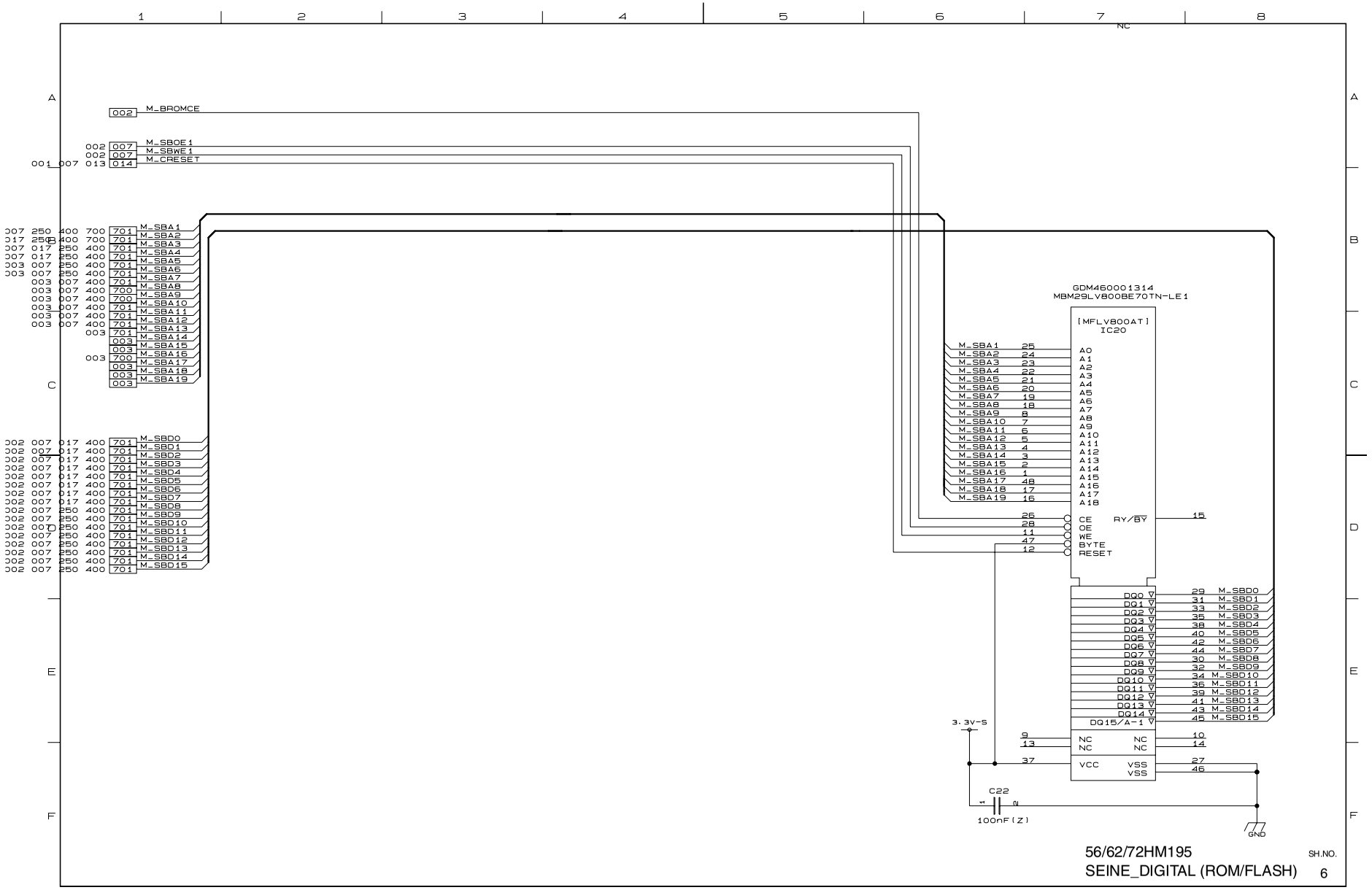
56/62/72HM195

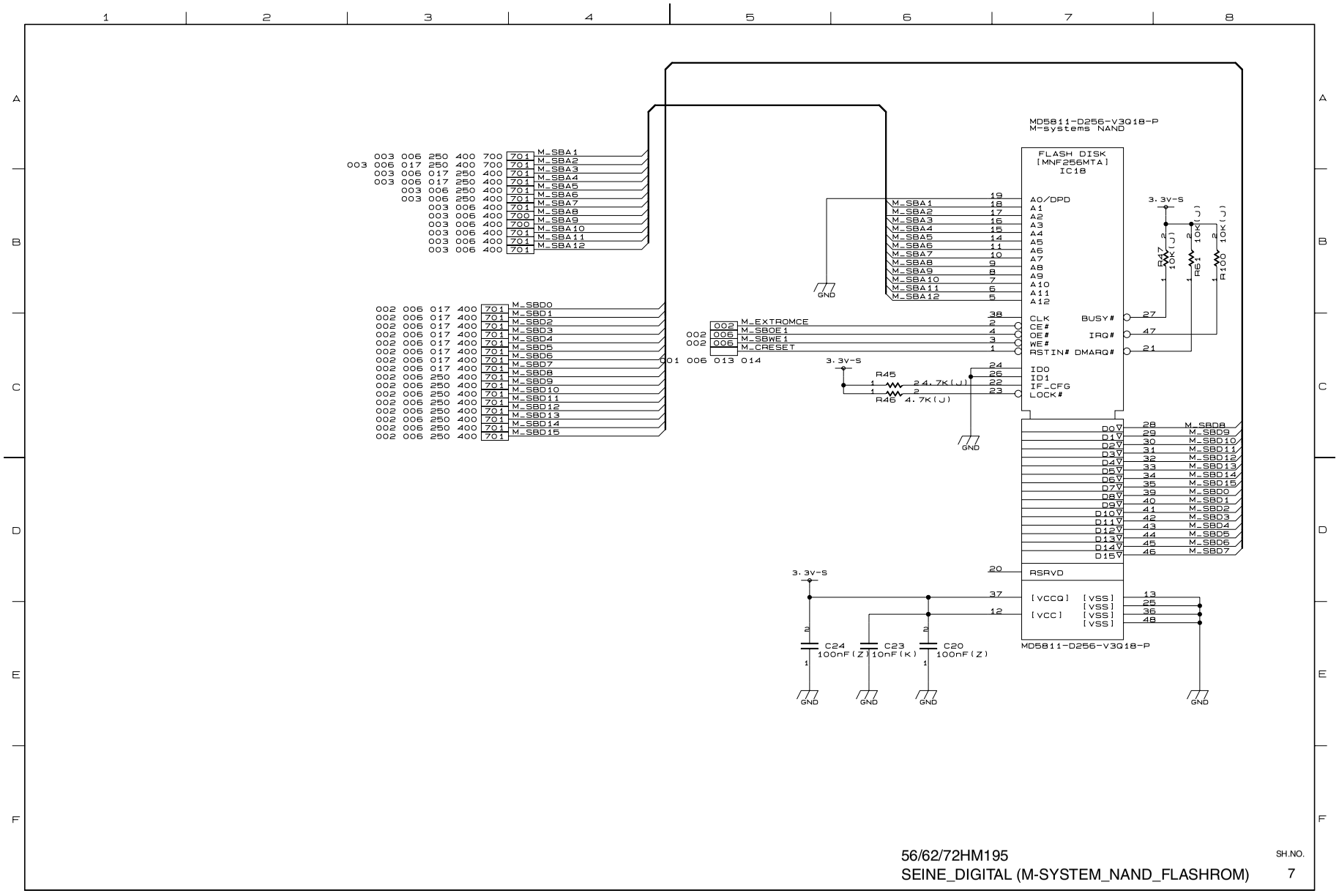
SEINE_DIGITAL (SLOW_BUS_ADDRESS_REGISTER)

SH.NO. 3


TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 2/13
[GB1240B]
IC1
[IIC I/F]
[UART0]
[UART1/2]
[UART3]
I2CDATA0
I2CDATA1
I2CCLK0
I2CCLK1
UACTS0_N
UARTS0_N
UARXD0
UATXD0
UA0EXCLK
SC0DET_N
SC0RST
SC0CLK
SC0C7IO
SC0VPPEN_N
SC0VCCEN_N
SC1DET_N
SC1RST
SC1C7IO
SC1VPPEN_N
SC1VCCEN_N
SC1CLK
ACLSDI
ACLSDO
ACLBCLK
ACLRST_N
ACLSYC
M_I2CDATA0
M_I2CCLK0
M_I2CDATA1
M_I2CCLK1
M_UARXD0
M_UATXD0
M_UATXD1
M_UARXD1
M_UARXD2
M_UATXD2
M_UARXD3
M_UATXD3
M_PLL18.5
(UACTS1_N)
(UARTS1_N)
(UATXD1_N)
(UARXD1_N)
(UACTS2_N)
(UARTS2_N)
(UATXD2_N)
(UARXD2_N)
(UA2EXCLK)
NC
3.3V-S
R85 22(J)
R86 1.8K(J)
R87 1.8K(J)
R89 22(J)
R90 4.7K(J)
R91 4.7K(J)
R92 1M(J)
R93 1M(J)
R95 1.8K(J)
R48 1.8K(J)
R12 47(J)
R13 47(J)
R97 4.7K(J)
R98 4.7K(J)
W13 0(X)
W14 0(X)
W15 0(X)
24LC128T-I/SNG
EEPROM
[MSEE16K8C]
IC17
SDA
SCL
A0
A1
A2
WP
[Vcc]
[Vss]
C19
100nF(Z)
GND
120ohm
[FL08B]
FL41
GDM220001519
B9B-PH-K-S(LF)(SN)
[C9A]
PJ10
<DEBUG/JTAG>
1:GND
2:N/C
3:+3.3V
4:Seine Rx
5:Seine Tx
6:PLD TDI
7:PLD TMS
8:PLD TCK
9:PLD TDO
JTAG_TDI
JTAG_TMS
JTAG_TCK
JTAG_TDO
DEBUG SIO /
JTAG CONNECTOR
for 3chAD
56/62/72HM195
SEINE_DIGITAL (IIC/UART)
SH.NO.
4

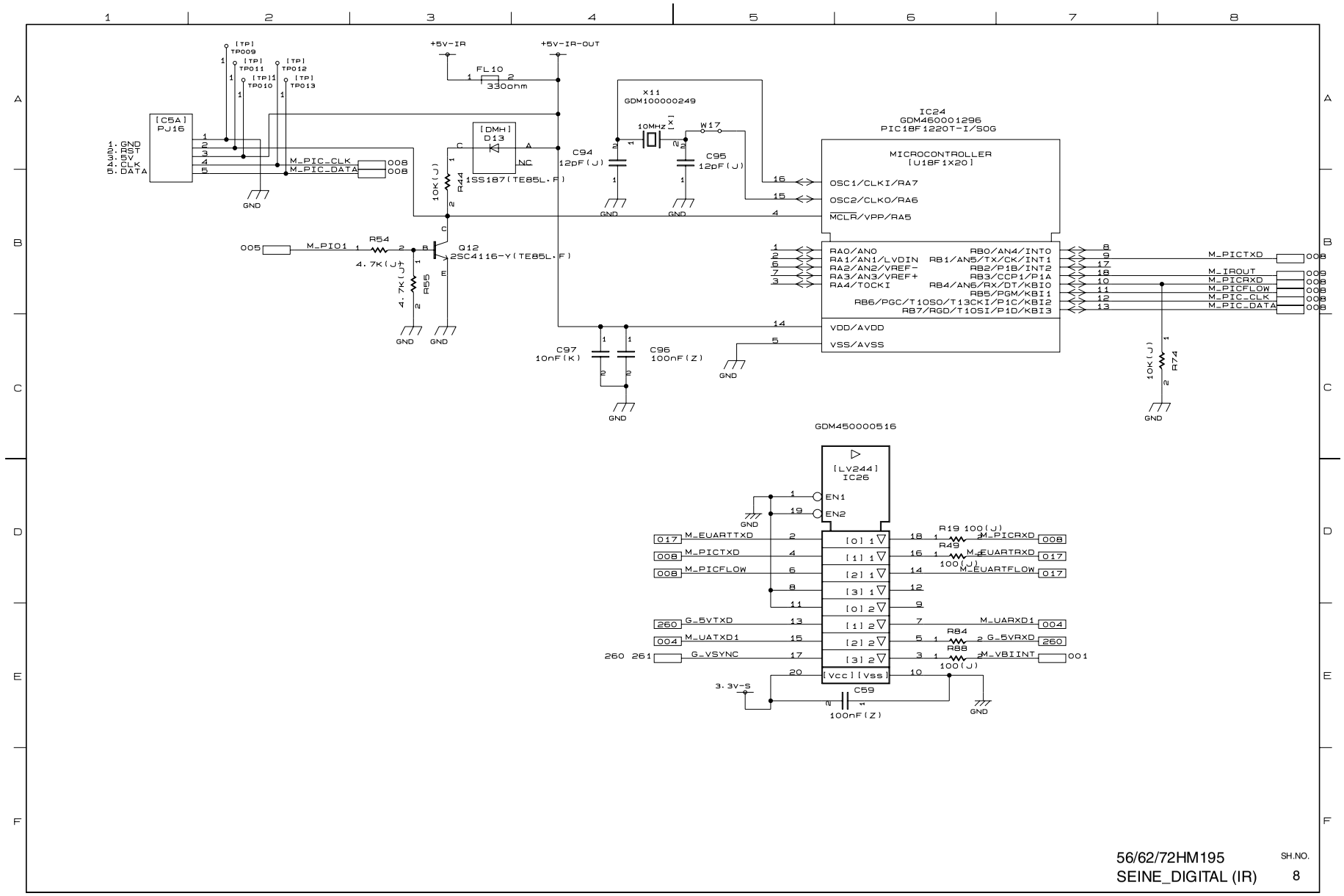

3.3V-S
4.7K(J)
RMX4A1 RM29
RMX4A1 RM30
RMX4A1 RM31
RMX4A1 RM32
R43 4.7K(J)
TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 3/13
[GB1240B]
IC1
[PIO]
PIO20 AN10
PIO19 AM10
PIO18 AL10
PIO17 AK11
PIO16 AL11
PIO15 AM11
PIO14 AN11
PIO13 AN12
PIO12 AM12
PIO11 AL12
PIO10 AK12
PIO9 AK13
PIO8 AL13
PIO7 AM13
PIO6 AN13
PIO5 AN14
PIO4 AM14
PIO3 AL14
PIO2 AK14
PIO1 AK15
PIO0 AL15
M_TV_BOOT_SW 012
M_DVD-AUDIO 301
E_PSTOP 250
E_RESET 250
M_AUDIO-MUTE 305
M_TV_USB_SW 012
M_PIO13 001
M_VMUTER 226
M_LVDSPDWN 221
M_PIO10 001
M_POWERSAVE 100
M_USBPWR 011
M_PIO7 012
M_3SRML 303
M_3SRMD 303
M_3SRMC 303
M_PIO3 260
M_PIO2 001
M_PIO1 008
M_PIO0 001
PI017: Enc STOP signal is Pull-up at the receiving end.
PI016: Enc RESET signal is Pull-down at the receiving end.
012
PI012: VMUTER signal is Pull-down at the receiving end.
[USB I/F]
3.3V-S
R18 10K(F)
M_USBCLK
Q10
C3 USBCLK48M
B2 USBOVCRNT
USBDPLS E5
USBDMNS D4
USBPRTPWR A2
M_USBDP Q11
M_USBDM Q11
R58 4.7K(J)
R102 NOT MOUNT 4.7K(J)
GND
GND
PIO20:TV BOOT SW
PIO19: N.C.
PIO18:DVD AUDIO
PIO17:Encoder STOP
PIO16:Encoder RESET
PIO15:Audio Mute
PIO14:TV USB SW
PIO13:Pod Standby UART0 SW
PIO12:Video Mute for RecOUT
PIO11:LVDS Power Down
PIO10:PLD RESET
PIO9 :POWER SAVE
PIO8 :USB Power
PIO7 :Pod Standby IICO SW
PIO6 :Serial bus latch(D/A)
PIO5 :Serial bus data(D/A)
PIO4 :Serial bus clock(D/A)
PIO3 :Gemster IR Reset
PIO2 :1394LSI Reset
PIO1 :Gemster IR Reset
PIO0 :3.3V Groba1 Reset
56/62/72HM195
SEINE_DIGITAL (PIO)
SH.NO.
5

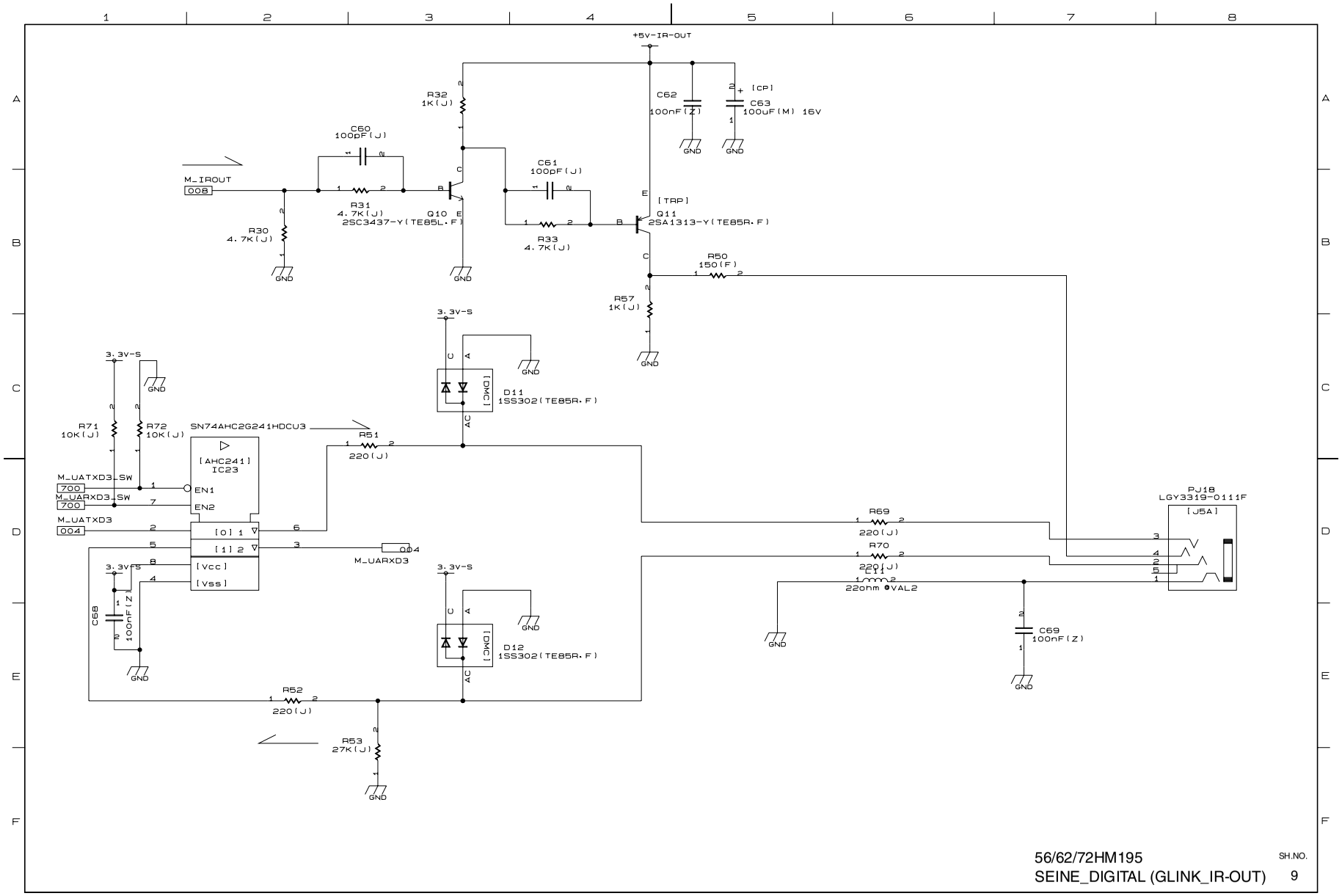

M_BROMCE
M_SBOE1
M_SBWE1
M_CRESET
M_SBA1
M_SBA2
M_SBA3
M_SBA4
M_SBA5
M_SBA6
M_SBA7
M_SBA8
M_SBA9
M_SBA10
M_SBA11
M_SBA12
M_SBA13
M_SBA14
M_SBA15
M_SBA16
M_SBA17
M_SBA18
M_SBA19
M_SBD0
M_SBD1
M_SBD2
M_SBD3
M_SBD4
M_SBD5
M_SBD6
M_SBD7
M_SBD8
M_SBD9
M_SBD10
M_SBD11
M_SBD12
M_SBD13
M_SBD14
M_SBD15
GDM460001314
MBM29LV800BE70TN-LE1
[MFLV800AT]
IC20
CE
OE
WE
BYTE
RESET
RY/BY
NC
VCC
VSS
3.3V-S
C22
100nF(Z)
GND
56/62/72HM195
SEINE_DIGITAL (ROM/FLASH)
SH.NO.
6



56/62/72HM195
SEINE_DIGITAL (M-SYSTEM_NAND_FLASHROM)

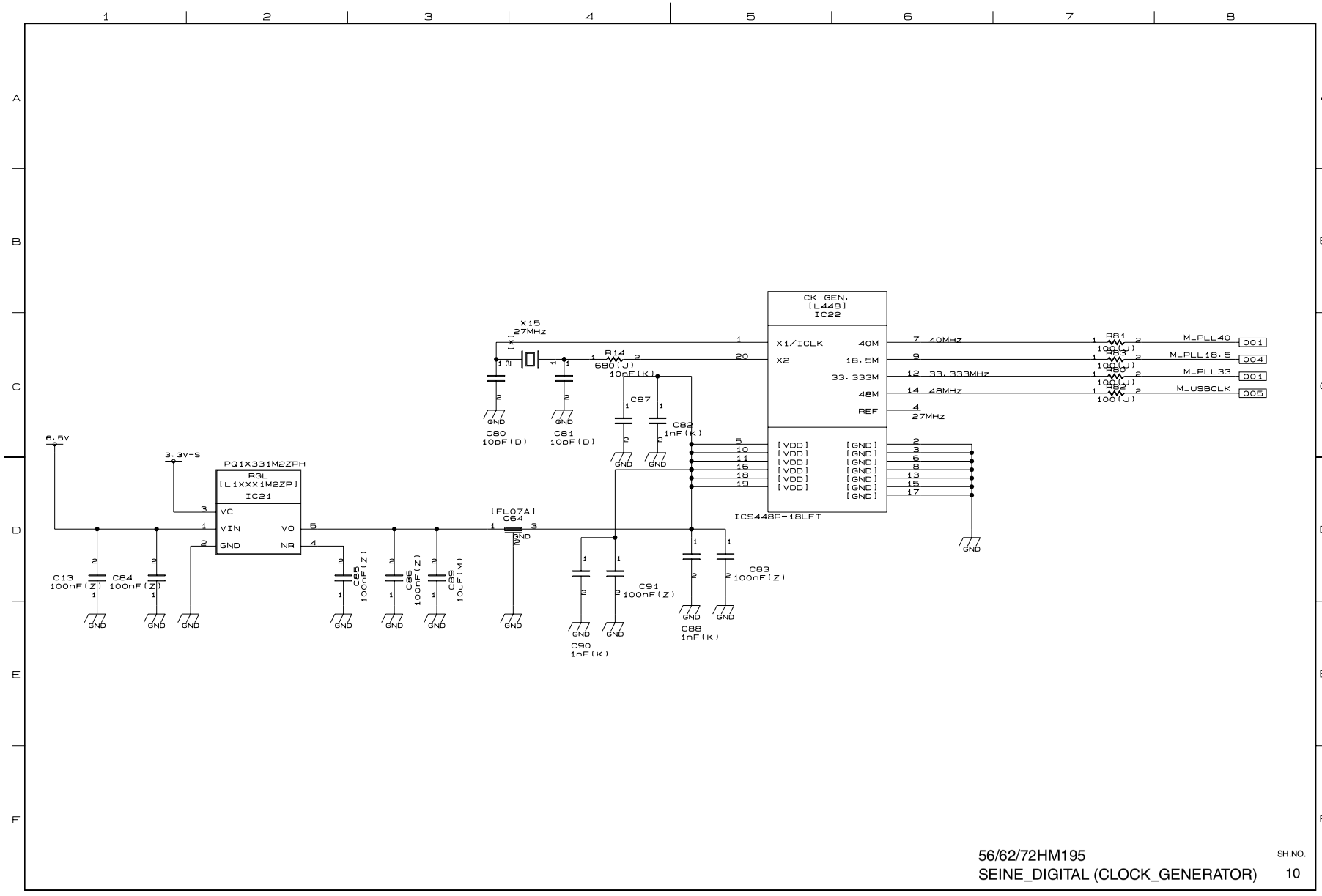
SH.NO. 7

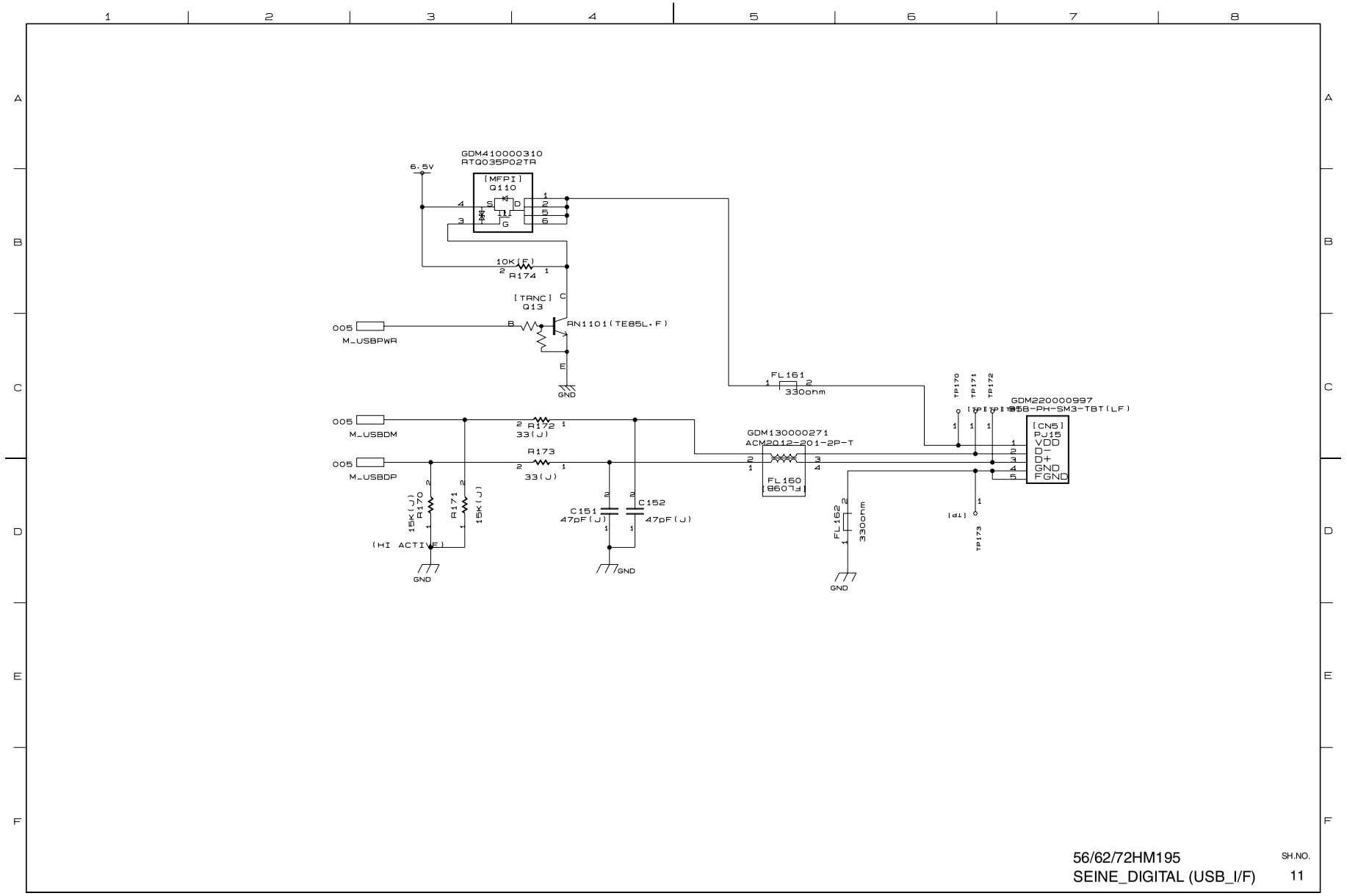

[C5A]
PJ16
1. GND
2. VDD
3. 5V
4. CLK
5. DATA
M_PIC_CLK
M_PIC_DATA
[TP] TP009
[TP] TP011
[TP] TP012
[TP] TP010
[TP] TP013
GND
+5V-IR
+5V-IR-OUT
FL10
330ohm
[DMH]
D13
NC
1SS187(TE85L,F)
R44
10K(J)
C94
12pF(J)
X11
GDM100000249
10MHz
W17
C95
12pF(J)
IC24
GDM460001296
PIC18F1220T-I/SOG
MICROCONTROLLER
[U18F1X20]
OSC1/CLKI/RA7
OSC2/CLKO/RA6
MCLR/VPP/RA5
RA0/AN0
RA1/AN1/LVDIN
RA2/AN2/VREF-
RA3/AN3/VREF+
RA4/T0CKI
RB0/AN4/INT0
RB1/AN5/TX/CK/INT1
RB2/P1B/INT2
RB3/CCP1/P1A
RB4/AN6/RX/DT/KBI0
RB5/PGM/KBI1
RB6/PGC/T1OSO/T13CKI/P1C/KBI2
RB7/RGD/T1OSI/P1D/KBI3
VDD/AVDD
VSS/AVSS
M_PICTXD
M_IROUT
M_PICRXD
M_PICFLOW
M_PIC_CLK
M_PIC_DATA
005
M_PIO1
R54
4.7K(J)
Q12
2SC4116-Y(TE85L,F)
R55
4.7K(J)
C97
10nF(K)
C96
100nF(Z)
R74
10K(J)
GDM450000516
[LV244]
IC26
EN1
EN2
M_EUARTTXD
M_PICTXD
M_PICFLOW
G_5VTXD
M_UATXD1
G_VSYNC
[0] 1
[1] 1
[2] 1
[3] 1
[0] 2
[1] 2
[2] 2
[3] 2
[Vcc] [Vss]
R19 100(J)
M_PICRXD
R43
M_EUARTRXD
100(J)
M_EUARTFLOW
M_UARXD1
R84
R85
G_5VRXD
M_VBIINT
100(J)
3.3V-S
C59
100nF(Z)
56/62/72HM195
SEINE_DIGITAL (IR)
SH.NO.
8

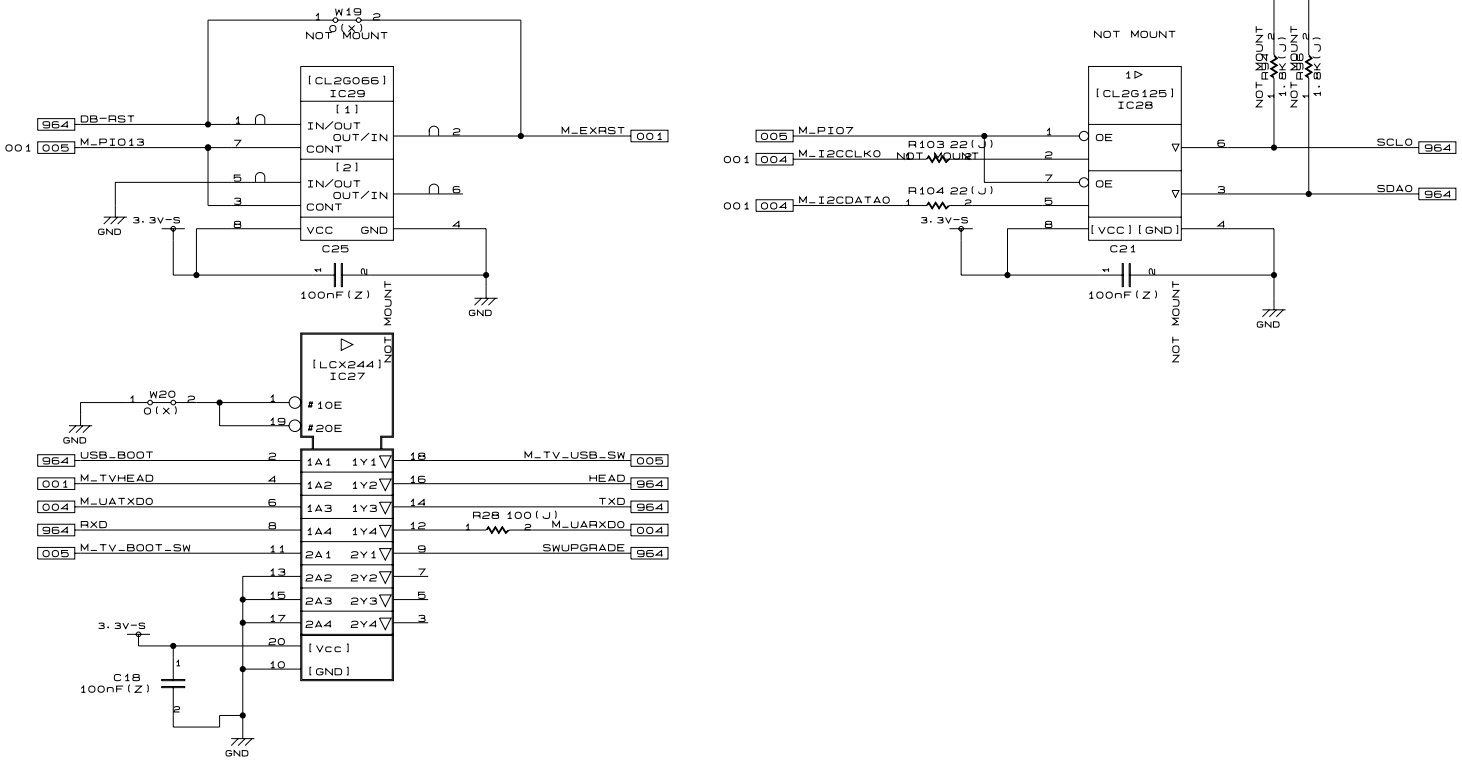


56/62/72HM195
SEINE_DIGITAL (GLINK_IR-OUT)

SH.NO. 9

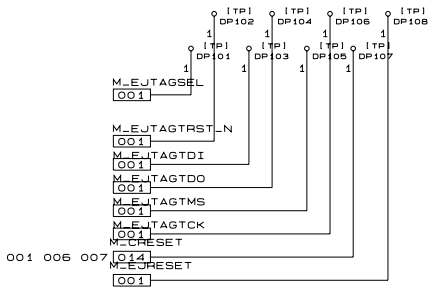

CK-GEN.
[L448]
IC22
X1/ICLK
X2
40M
18.5M
33.333M
48M
REF
ICS448R-18LFT
X15
27MHz
R14
680[J]
C80
10pF[D]
C81
10pF[D]
C87
C82
1nF[K]
40MHz
33.333MHz
48MHz
27MHz
R81
R83
R80
R82
100[J]
M_PLL40
M_PLL18.5
M_PLL33
M_USBCLK
001
004
001
005
6.5V
3.3V-S
PQ1X331M2ZPH
RGL
[L1XXX1M2ZP]
IC21
VC
VIN
VO
GND
NR
[FL07A]
C64
C13
100nF[Z]
C84
100nF[Z]
C85
100nF[Z]
C86
100nF[Z]
C89
10uF[M]
C91
100nF[Z]
C83
100nF[Z]
C90
1nF[K]
C88
1nF[K]
[VDD]
[GND]
56/62/72HM195
SEINE_DIGITAL (CLOCK_GENERATOR)
SH.NO.
10


GDM4100000310
RTQ035P02TR
6.5V
[MFPI]
Q110
10K(F)
R174
[TRNC]
Q13
RN1101(TE85L.F)
005
M_USBPWR
GND
FL161
330ohm
TP170
TP171
TP172
GDM2200000997
[CN5]
PJ15
VDD
D-
D+
GND
FGND
005
M_USBDM
R172
33(J)
005
M_USBDP
R173
33(J)
GDM1300000271
ACM2012-201-2P-T
FL160
R170
15K(J)
R171
15K(J)
(HI ACTIVE)
C151
47pF(J)
C152
47pF(J)
FL162
330ohm
TP173
56/62/72HM195
SEINE_DIGITAL (USB_I/F)
SH.NO.
11



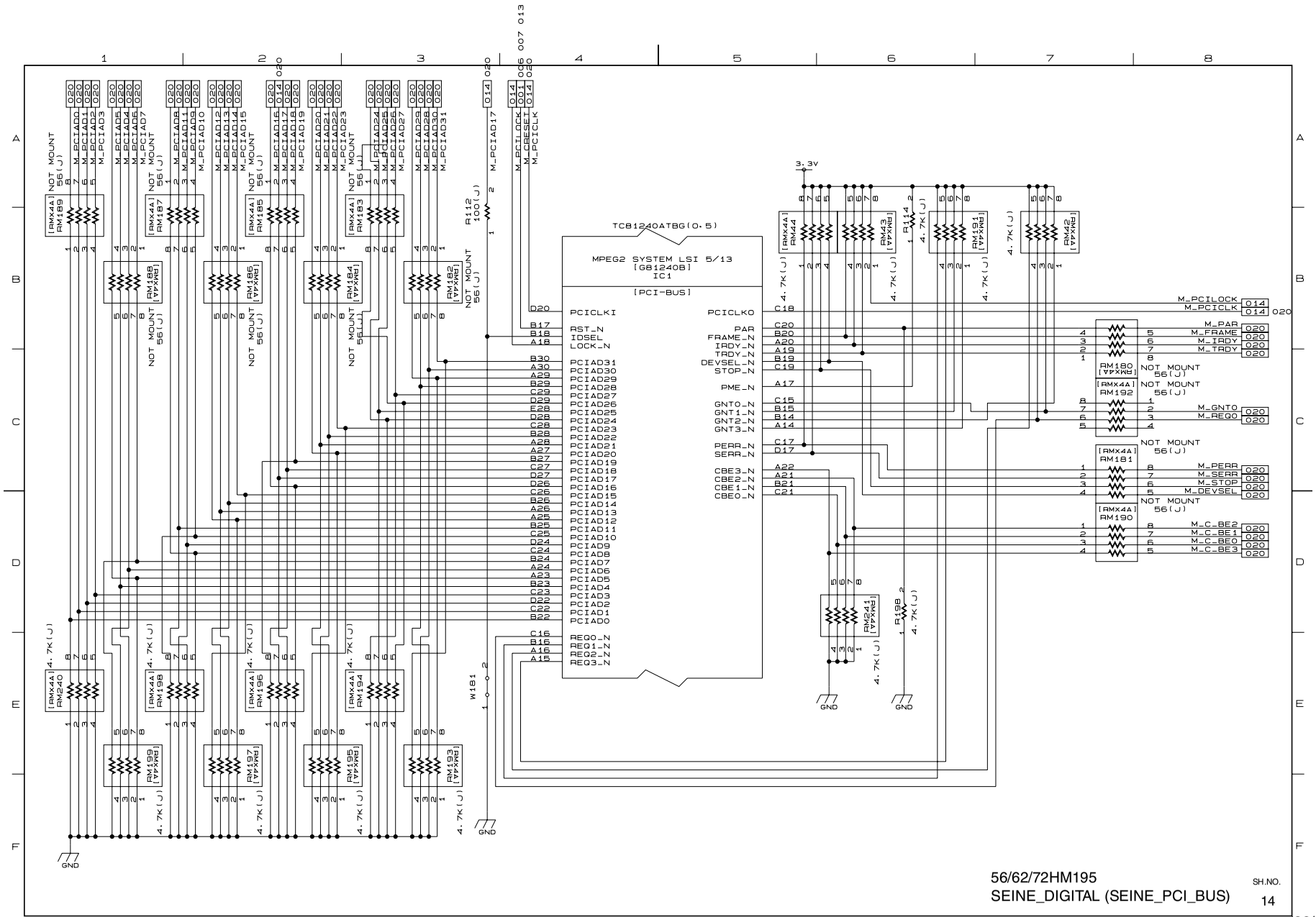
56/62/72HM195
SEINE_DIGITAL (UARTO_INTERFACE)

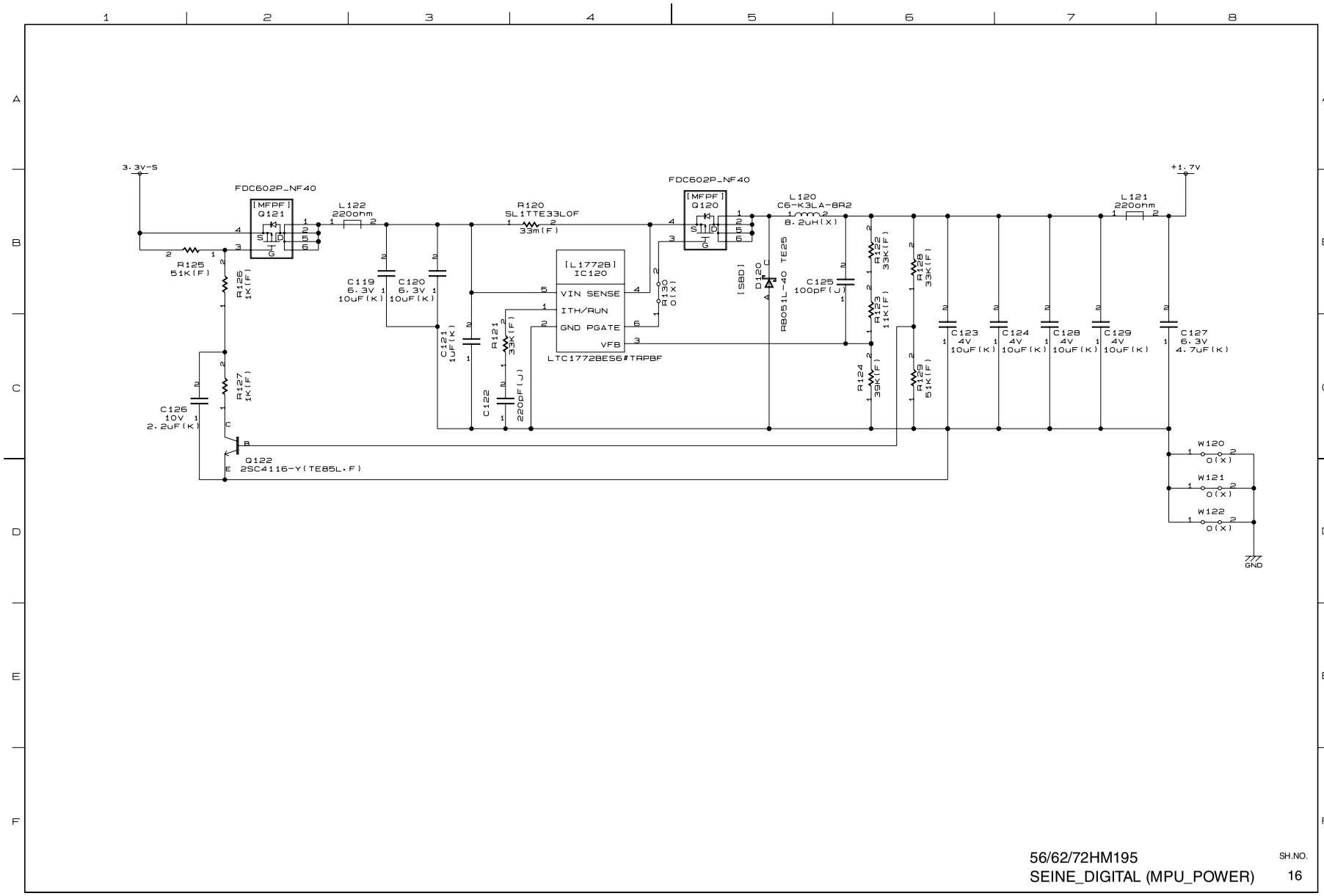
SH.NO. 12



56/62/72HM195
SEINE_DIGITAL (EJTAG_CONNECTOR)

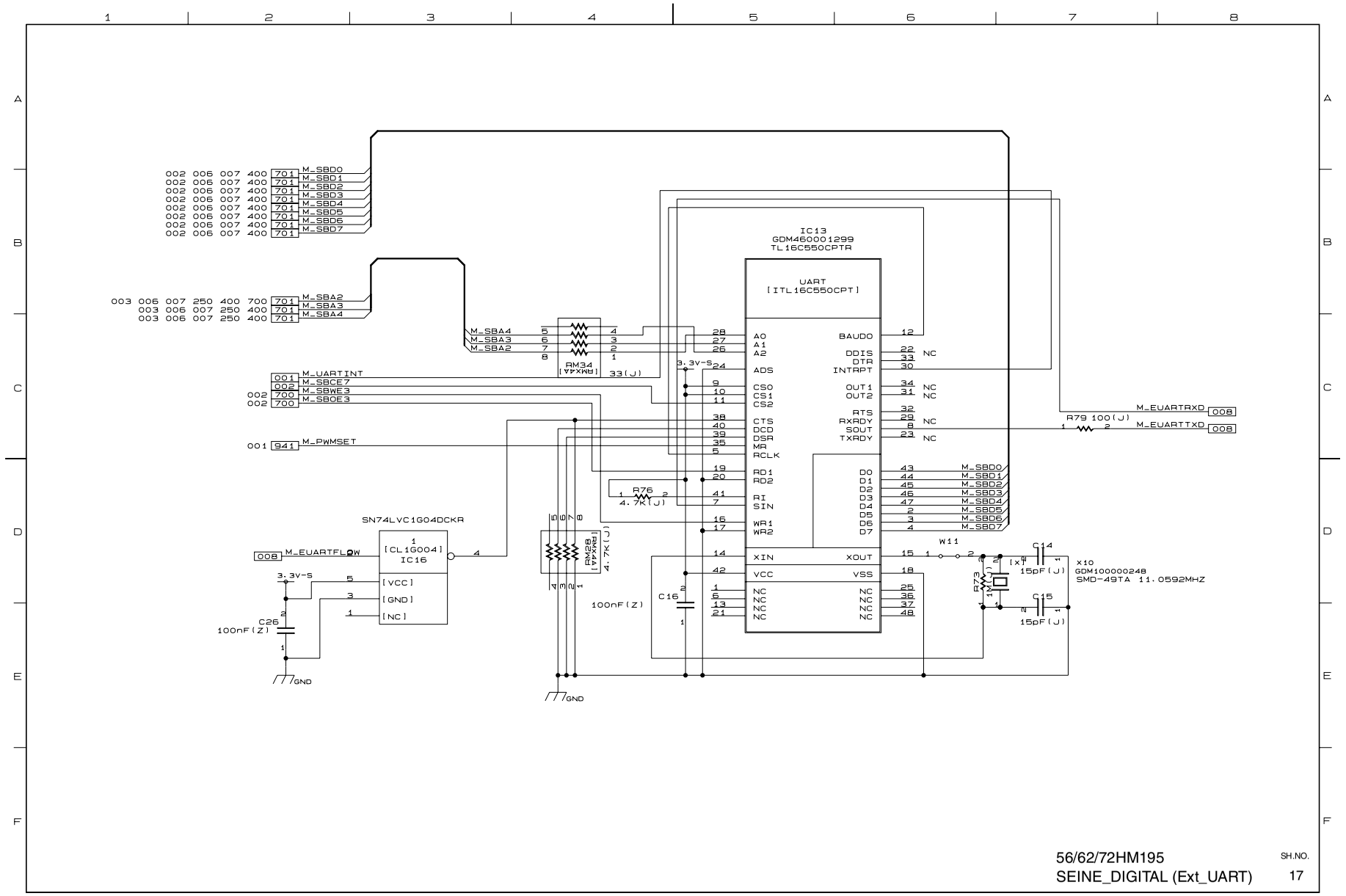
SH.NO. 13


TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 5/13
[G81240B]
IC1
[PCI-BUS]
PCICLKI
RST_N
IDSEL
LOCK_N
PCIAD31
PCIAD30
PCIAD29
PCIAD28
PCIAD27
PCIAD26
PCIAD25
PCIAD24
PCIAD23
PCIAD22
PCIAD21
PCIAD20
PCIAD19
PCIAD18
PCIAD17
PCIAD16
PCIAD15
PCIAD14
PCIAD13
PCIAD12
PCIAD11
PCIAD10
PCIAD9
PCIAD8
PCIAD7
PCIAD6
PCIAD5
PCIAD4
PCIAD3
PCIAD2
PCIAD1
PCIAD0
REQ0_N
REQ1_N
REQ2_N
REQ3_N
PCICLKO
PAR
FRAME_N
IRDY_N
TRDY_N
DEVSEL_N
STOP_N
PME_N
GNT0_N
GNT1_N
GNT2_N
GNT3_N
PERR_N
SERR_N
CBE3_N
CBE2_N
CBE1_N
CBE0_N
M_PCIAD17
M_PCILOCK
M_CBESET
M_PCICLK
M_PAR
M_FRAME
M_IRDY
M_TRDY
M_GNT0
M_REQ0
M_PERR
M_SERR
M_STOP
M_DEVSEL
M_C_BE2
M_C_BE1
M_C_BE0
M_C_BE3
R112 100(J)
R114 4.7K(J)
R198 4.7K(J)
W181
3.3V
GND
NOT MOUNT 56(J)
4.7K(J)
56/62/72HM195
SEINE_DIGITAL (SEINE_PCI_BUS)
SH.NO.
14



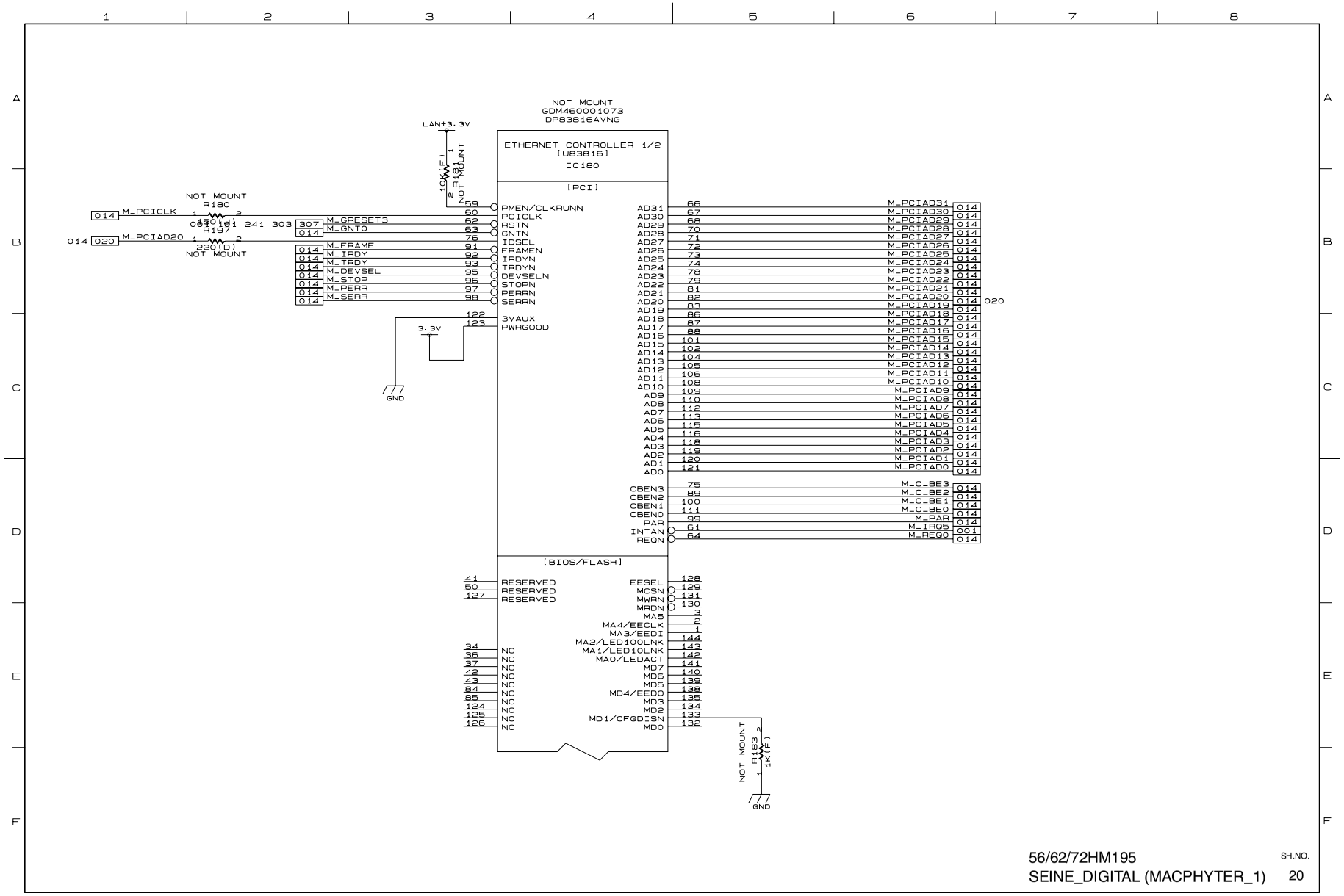
56/62/72HM195
SEINE_DIGITAL (MPU_POWER)

SH.NO. 16



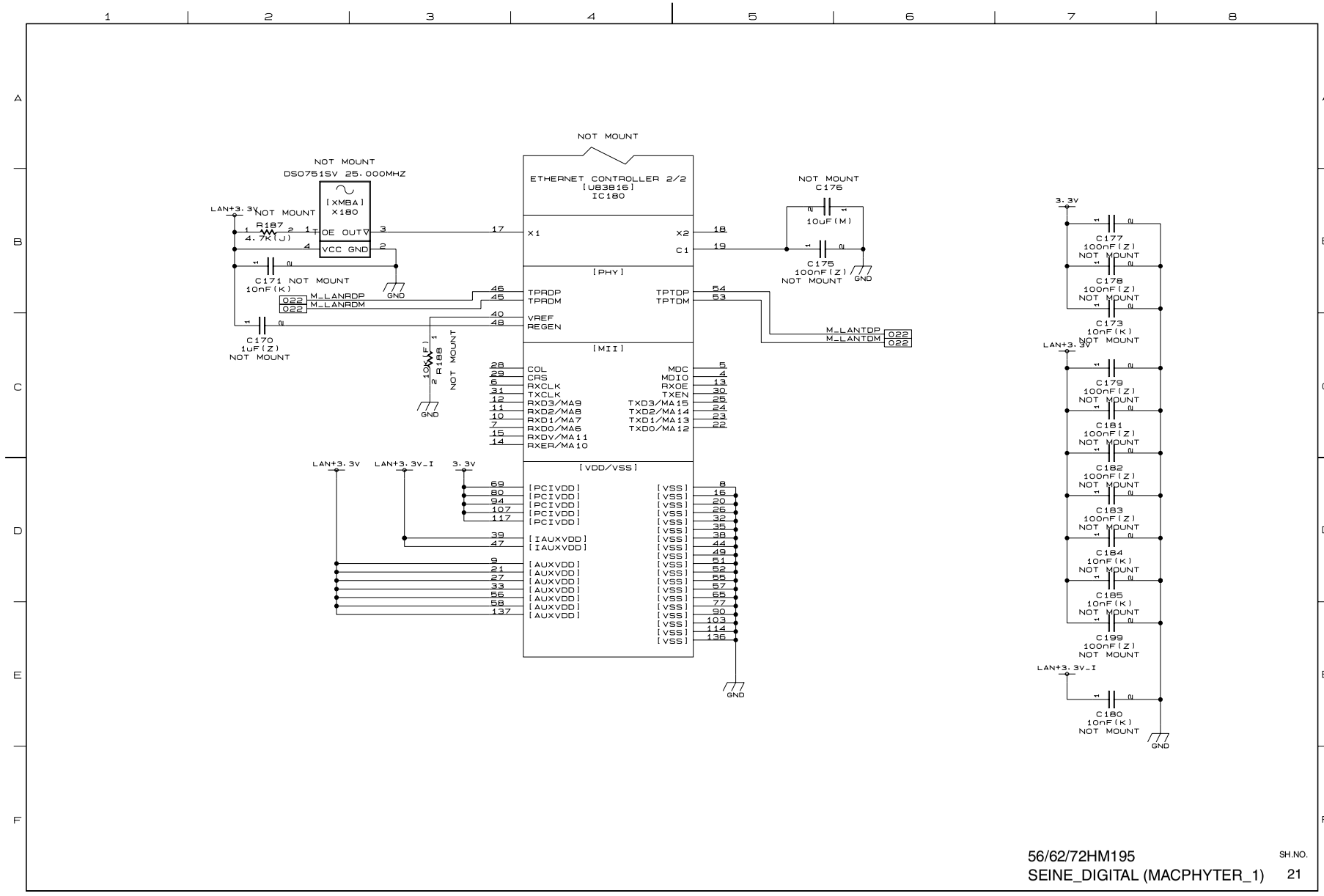
56/62/72HM195
SEINE_DIGITAL (Ext_UART)

SH.NO. 17

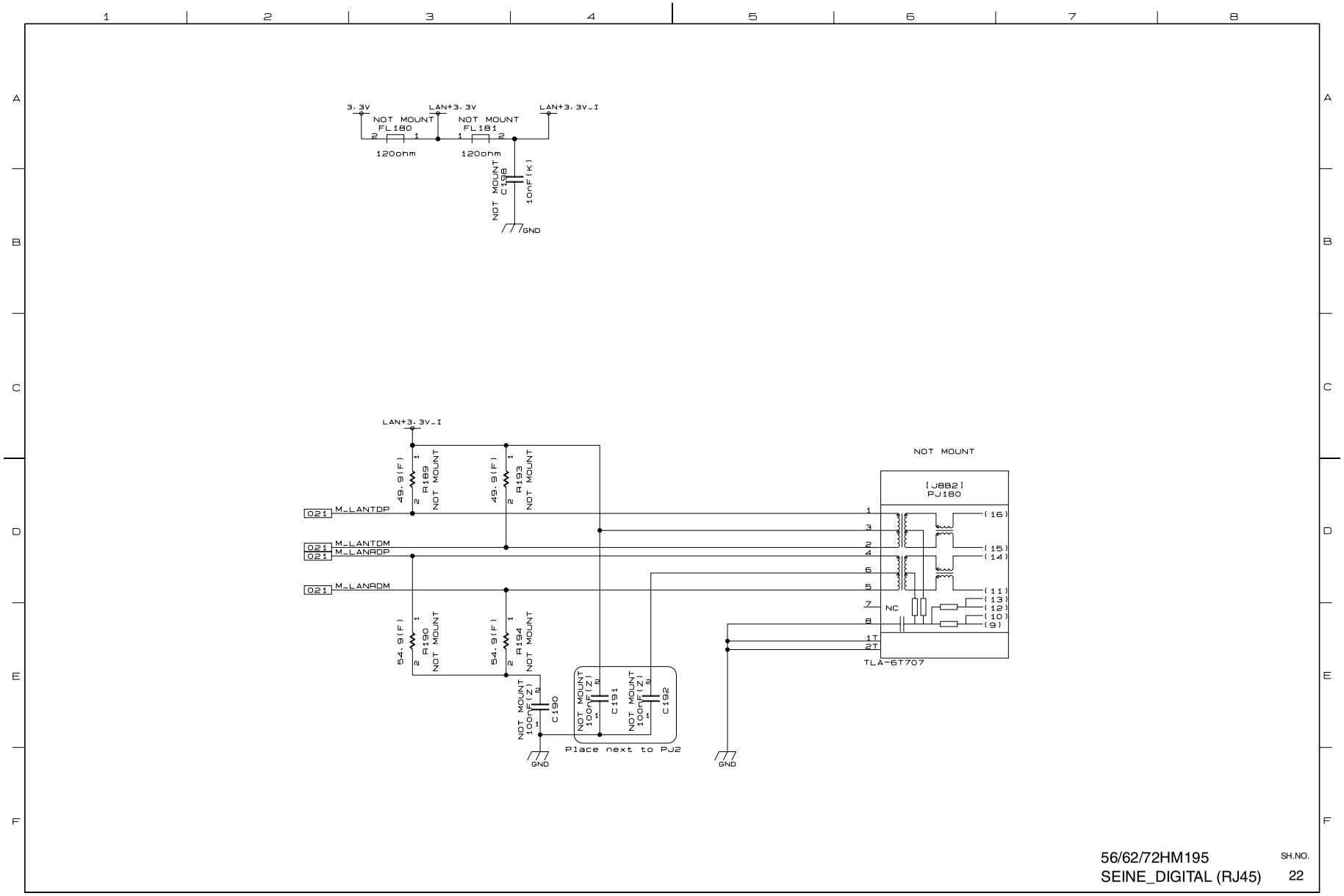


56/62/72HM195
SEINE_DIGITAL (MACPHYTER_1)

SH.NO. 20

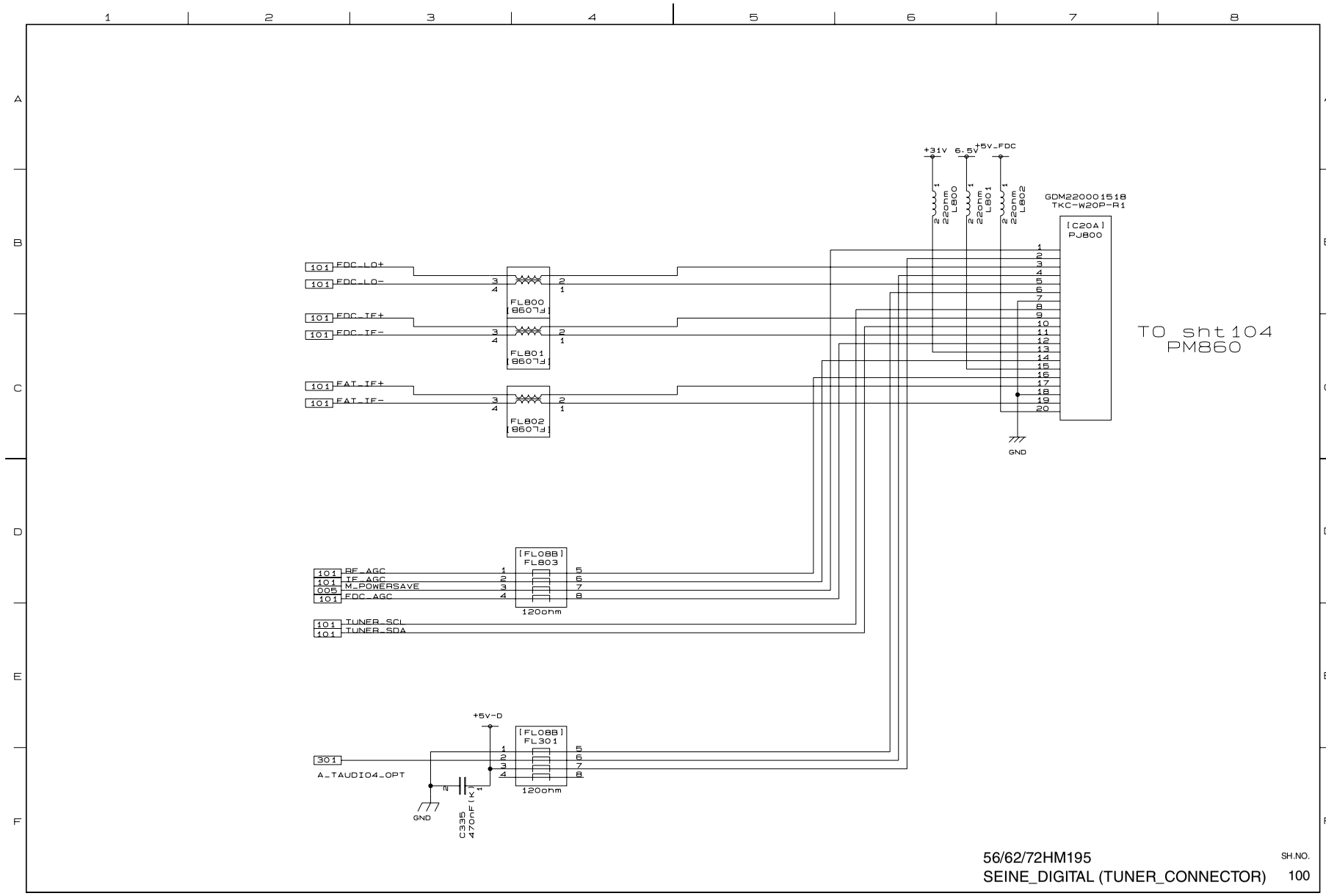


56/62/72HM195 SH.NO.
SEINE_DIGITAL (MACPHYTER_1) 21



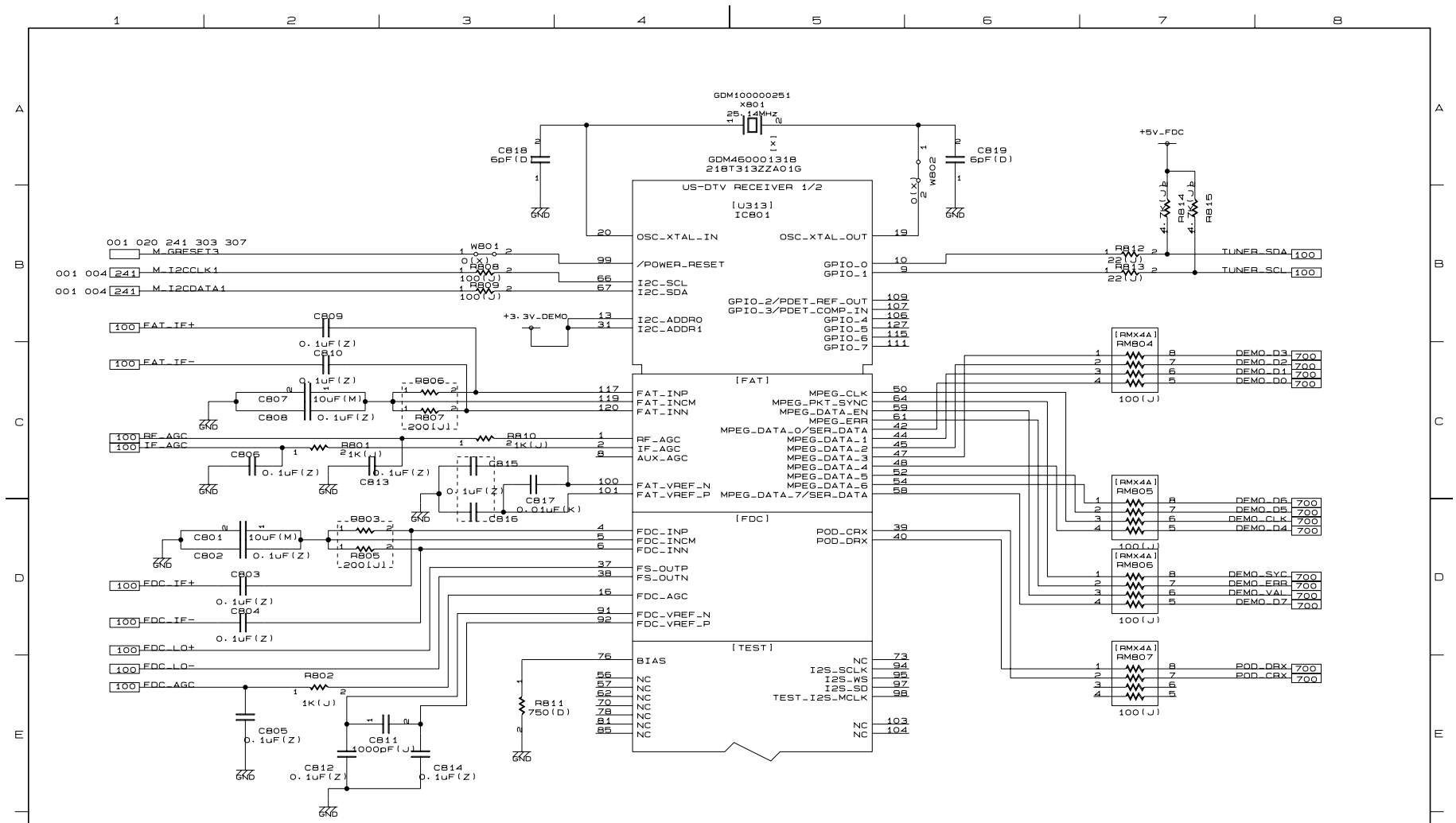
56/62/72HM195
SEINE_DIGITAL (RJ45)

SH.NO.
22



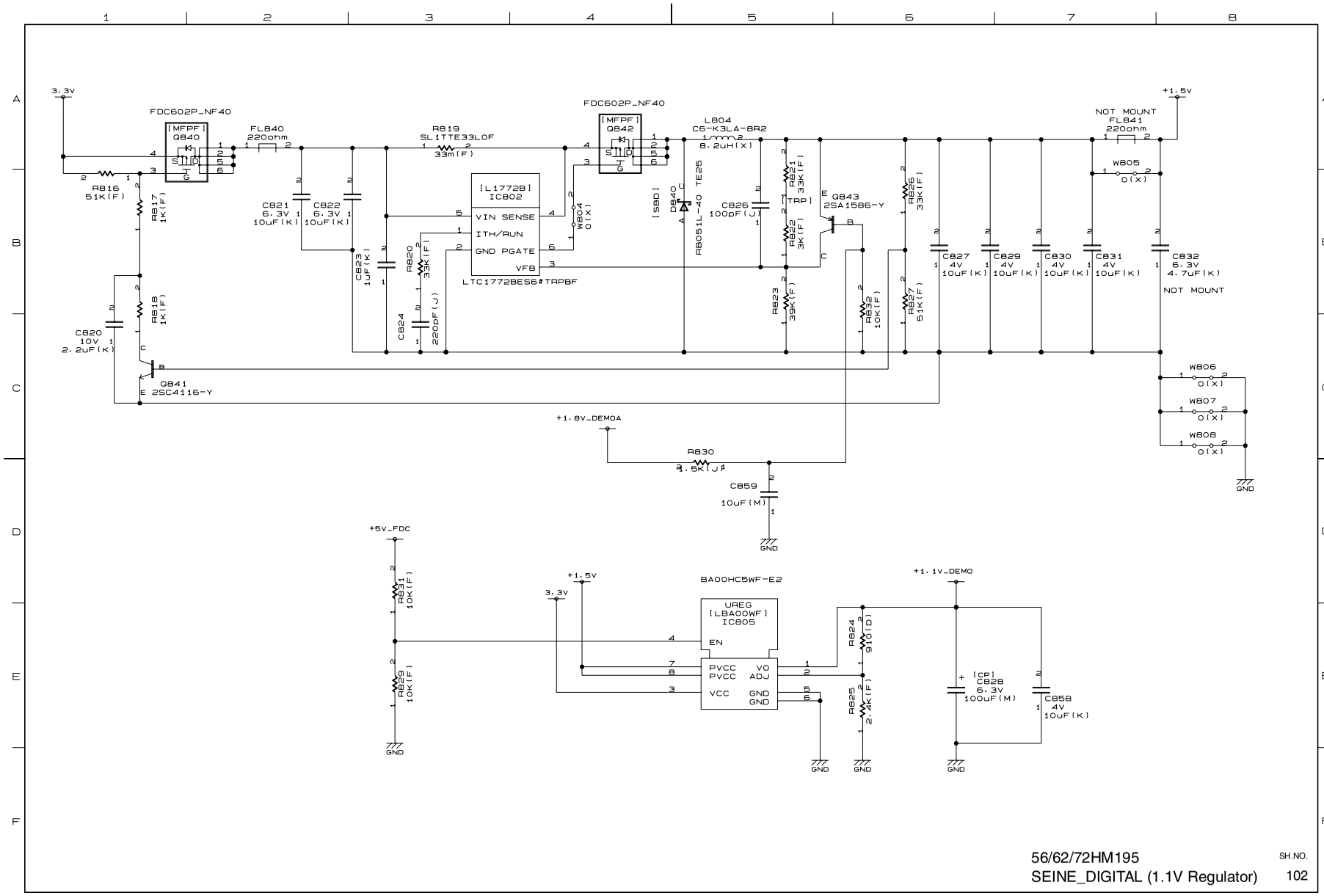
56/62/72HM195
SEINE_DIGITAL (TUNER_CONNECTOR)

SH.NO.
100



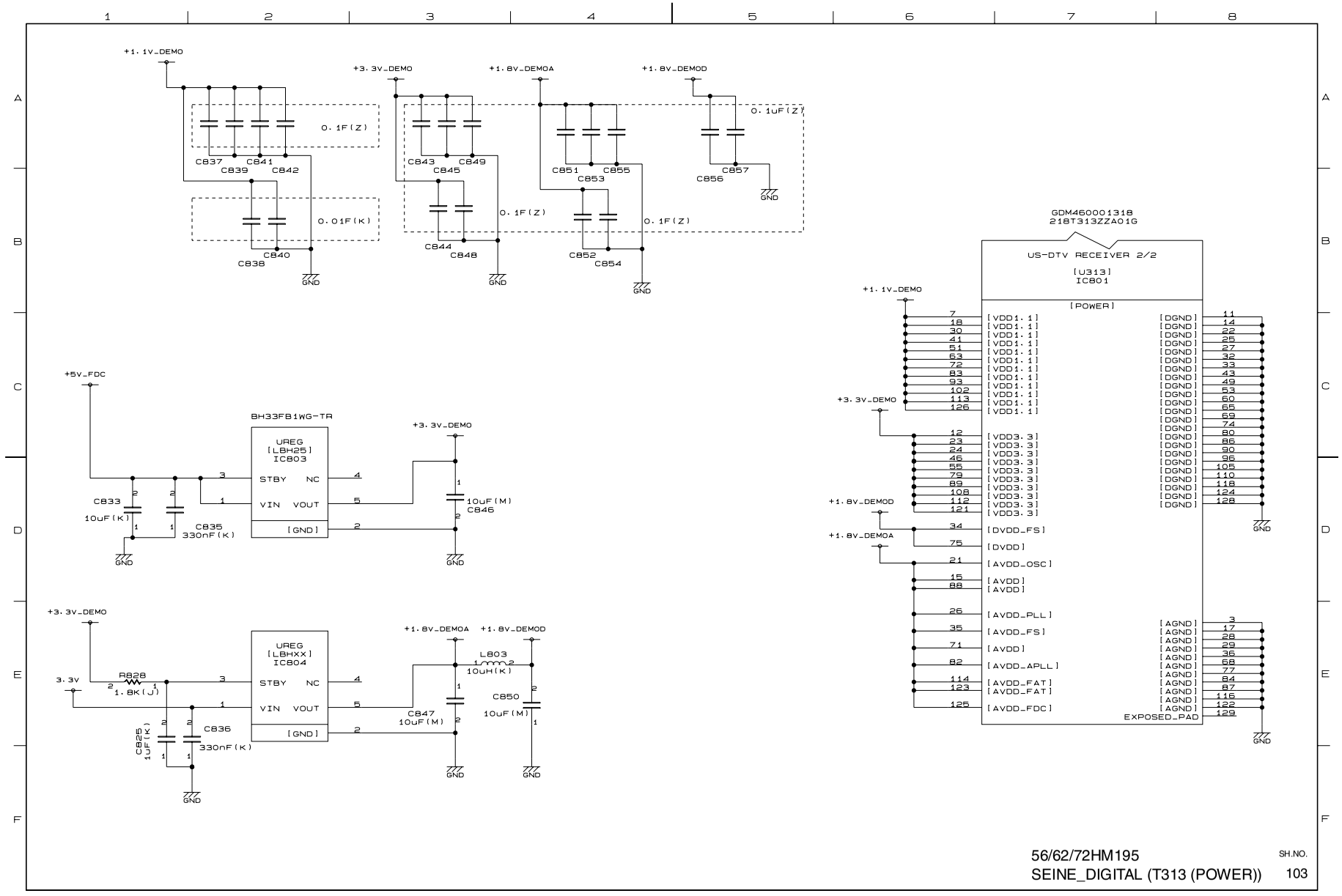
56/62/72HM195
SEINE_DIGITAL (T313 (Signal))

SH.NO.
101



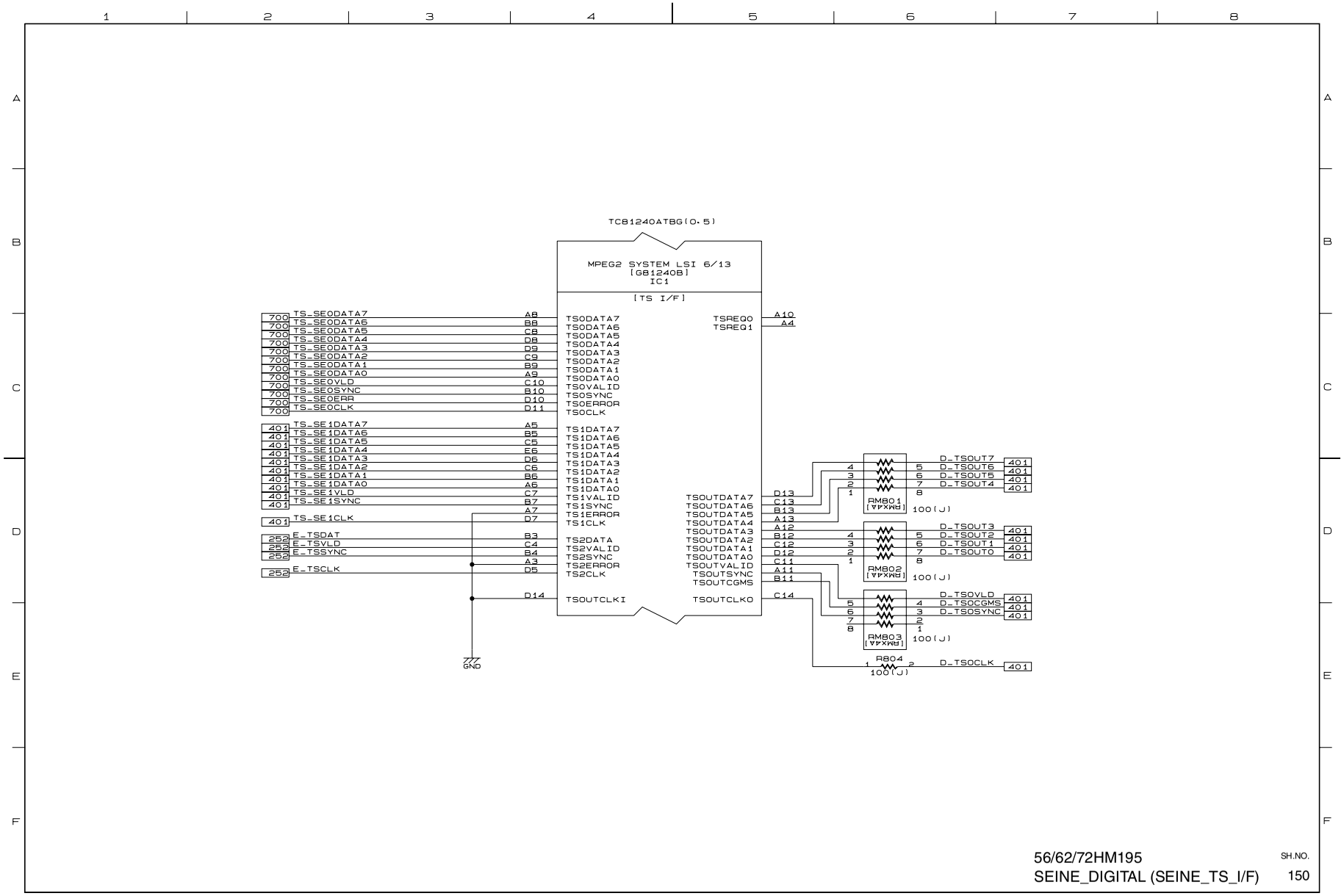
56/62/72HM195
SEINE_DIGITAL (1.1V Regulator)

SH.NO.
102



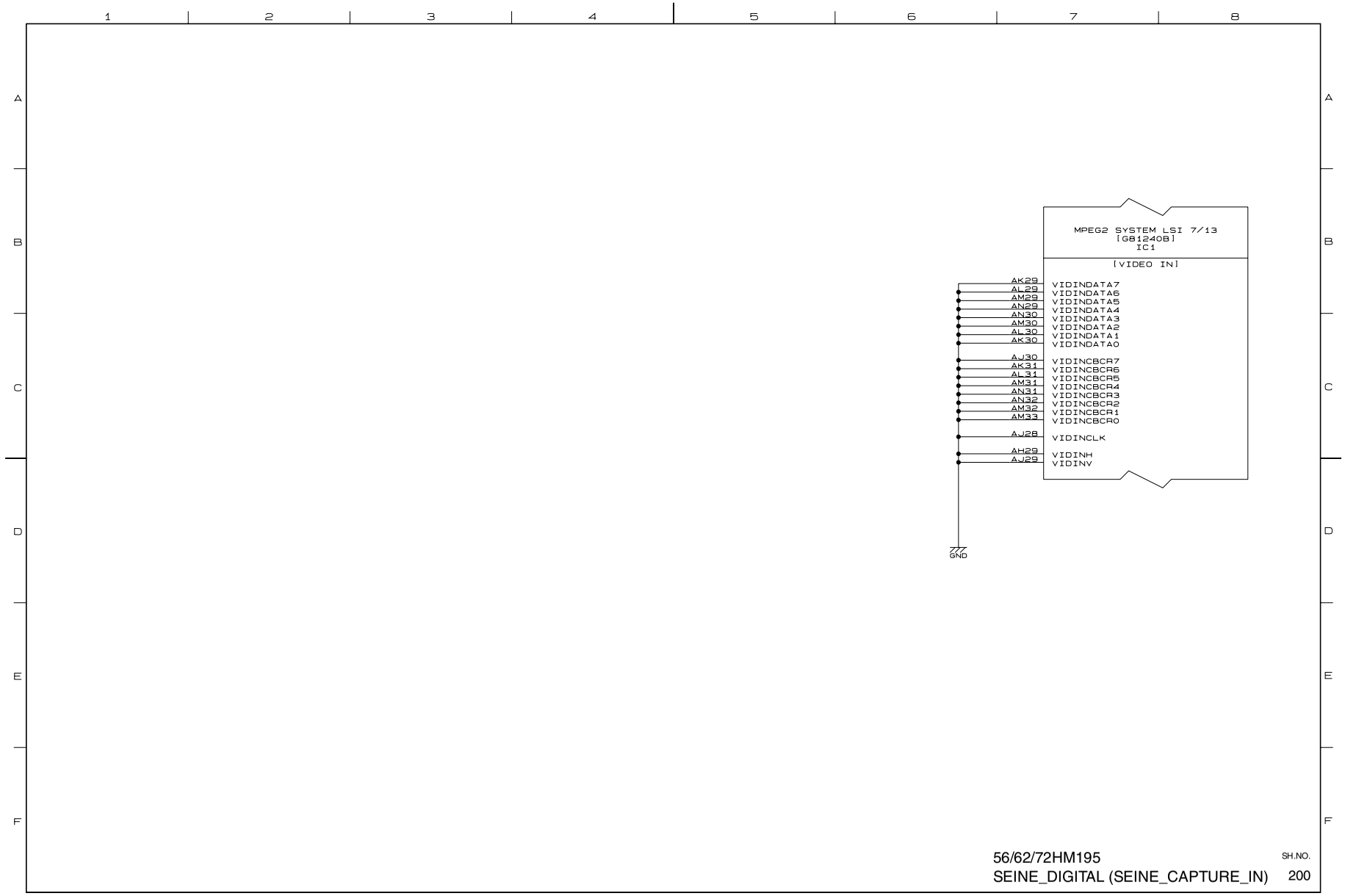
56/62/72HM195
SEINE_DIGITAL (T313 (POWER))

SH.NO. 103



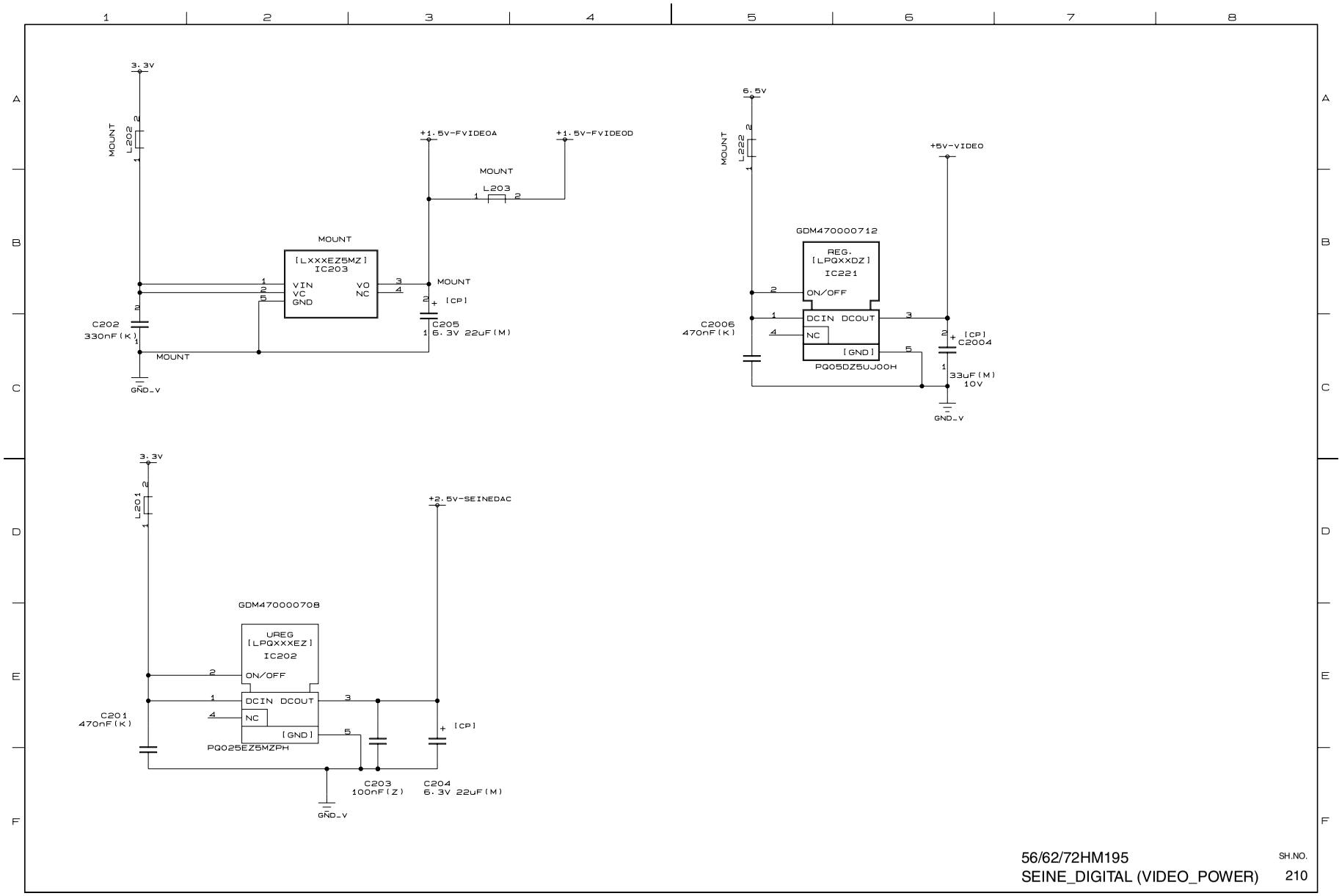
56/62/72HM195
SEINE_DIGITAL (SEINE_TS_I/F)

SH.NO.
150



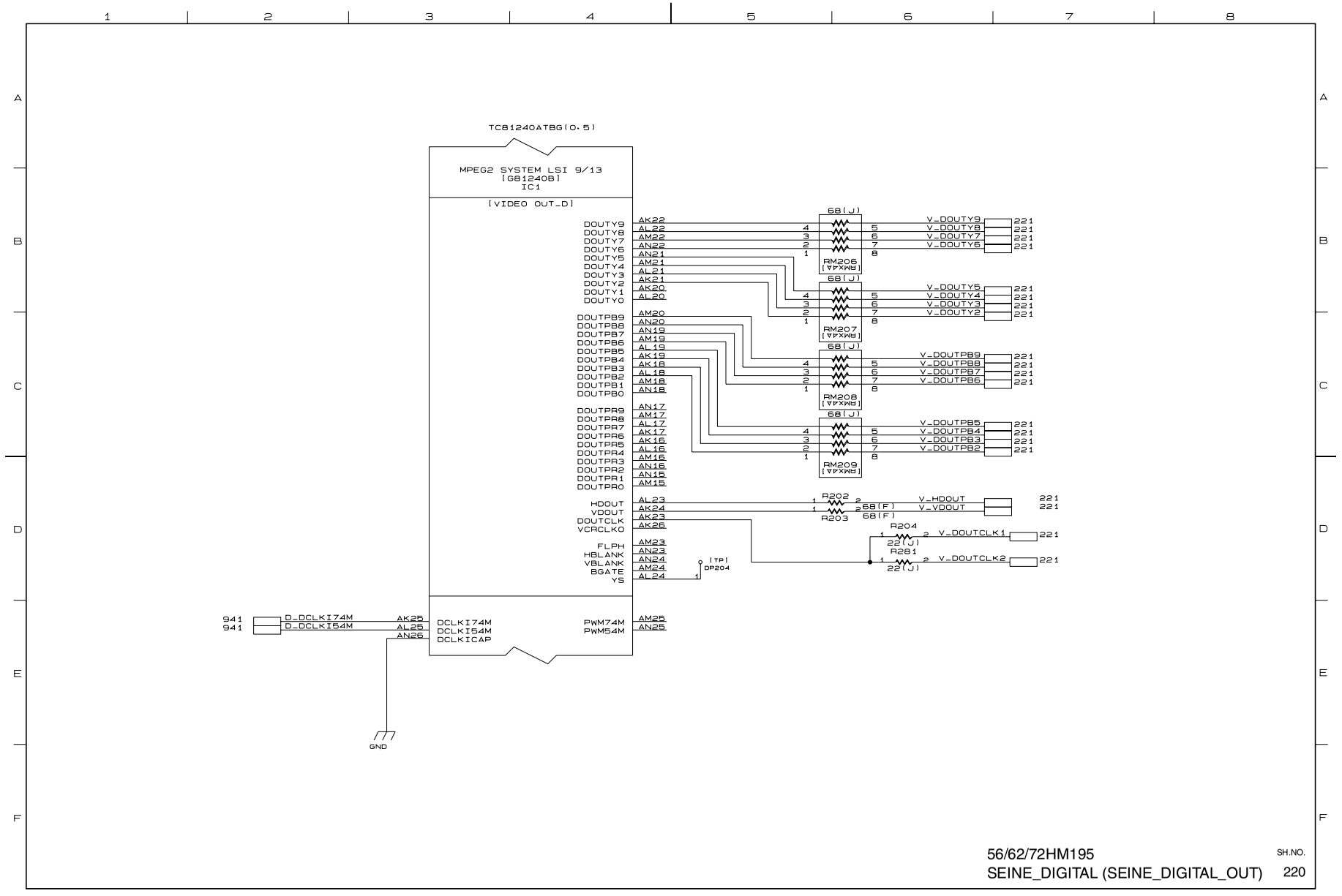
56/62/72HM195
SEINE_DIGITAL (SEINE_CAPTURE_IN)

SH.NO.
200



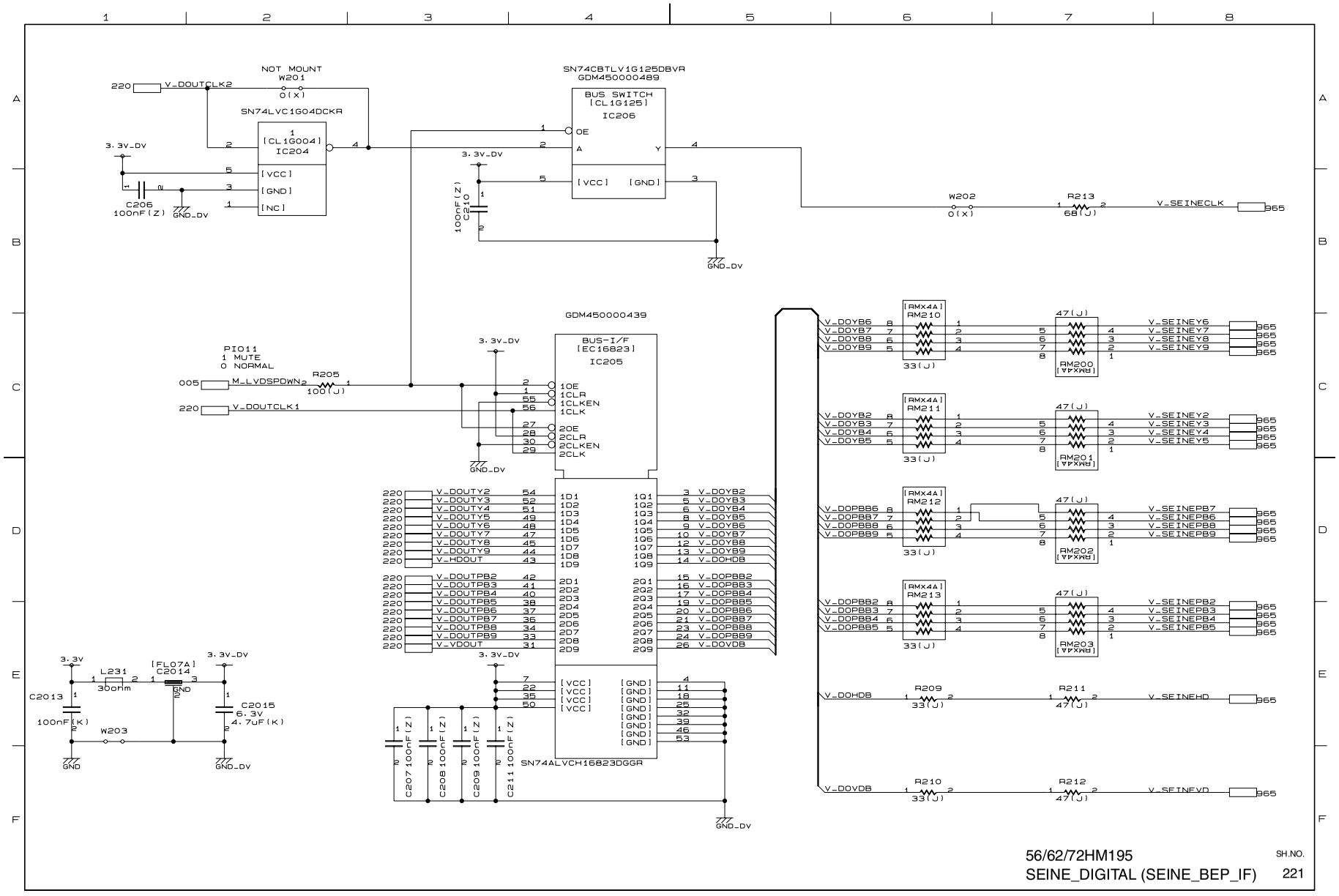
56/62/72HM195
SEINE_DIGITAL (VIDEO_POWER)

SH.NO. 210



56/62/72HM195
SEINE_DIGITAL (SEINE_DIGITAL_OUT)

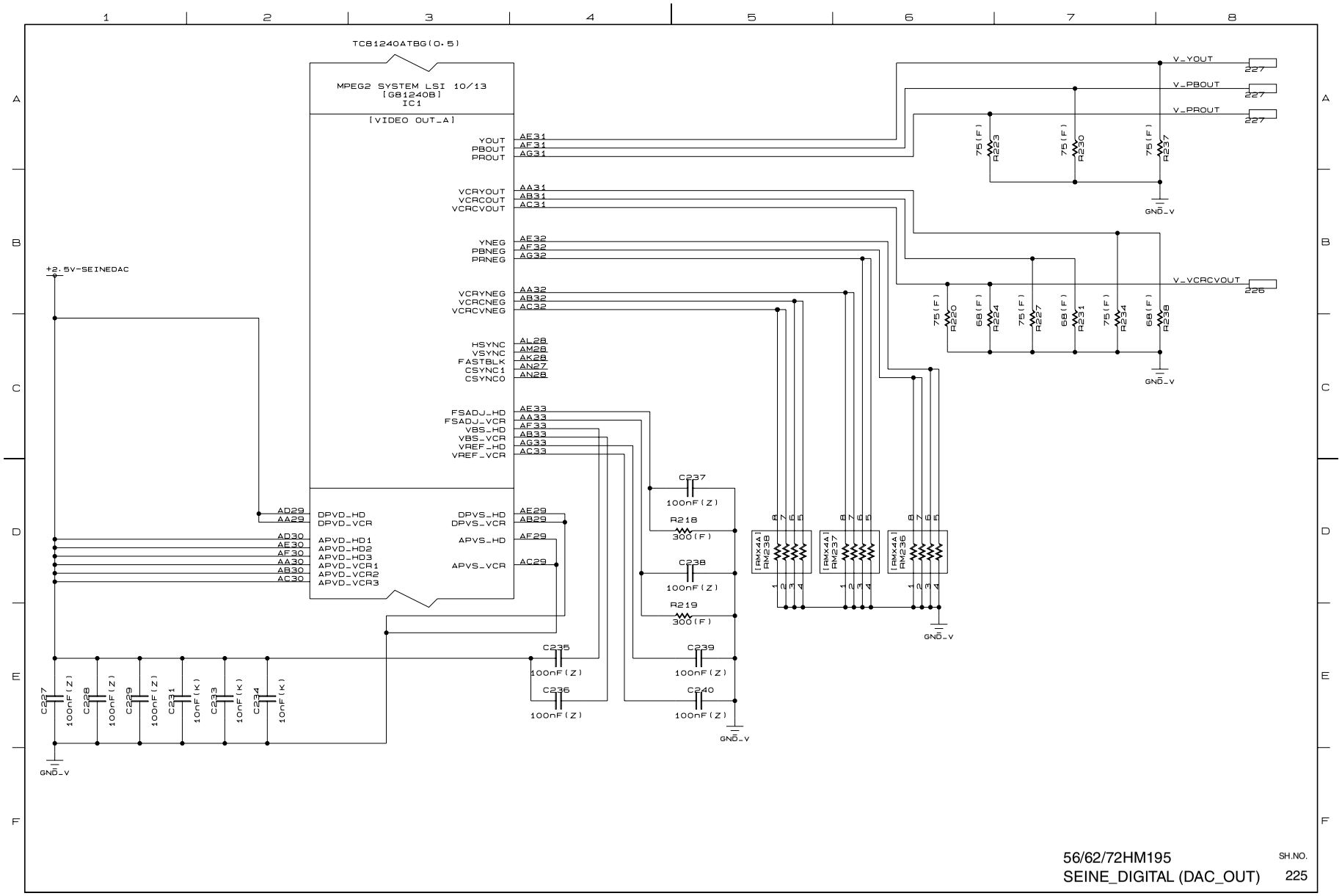
SH.NO. 220

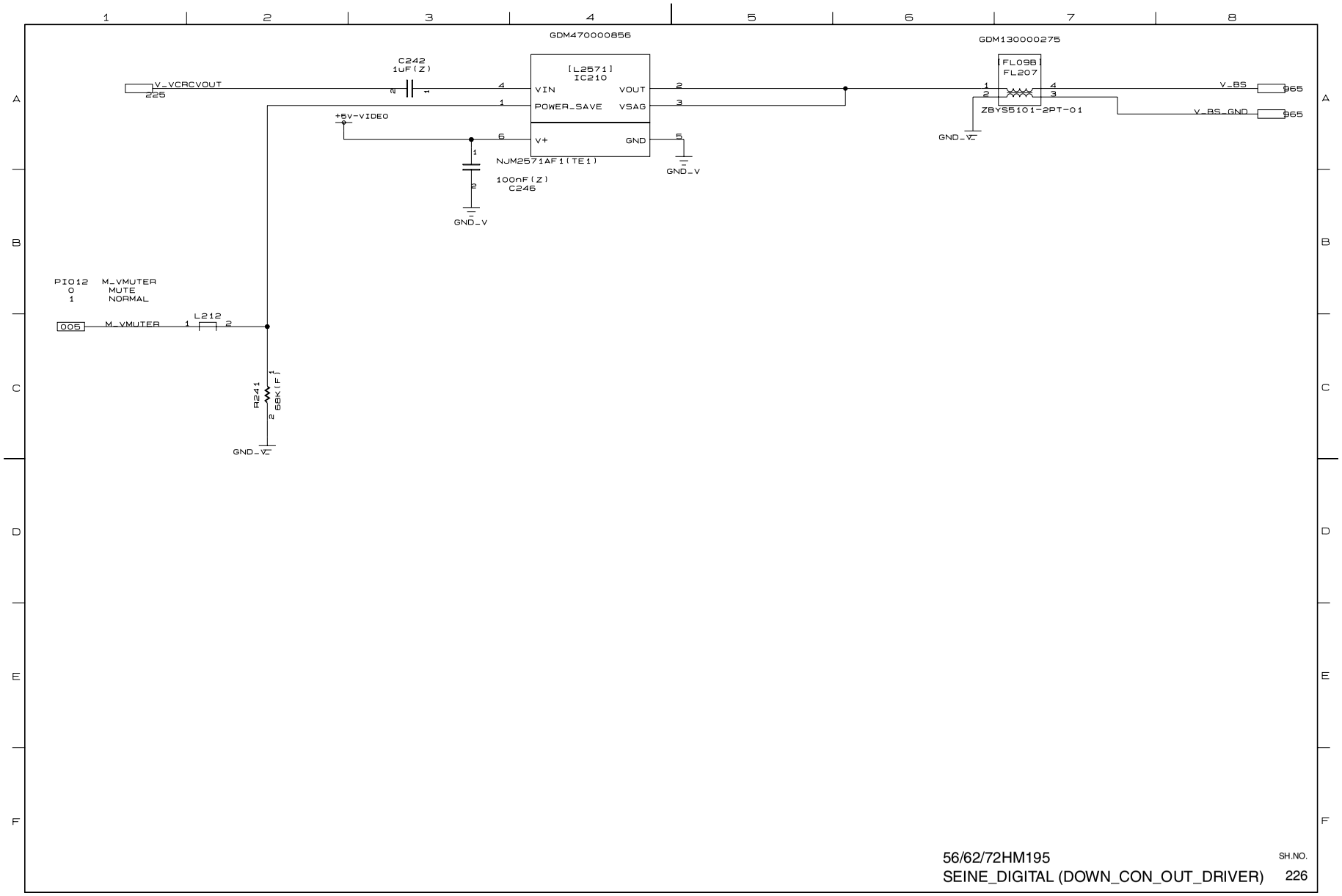


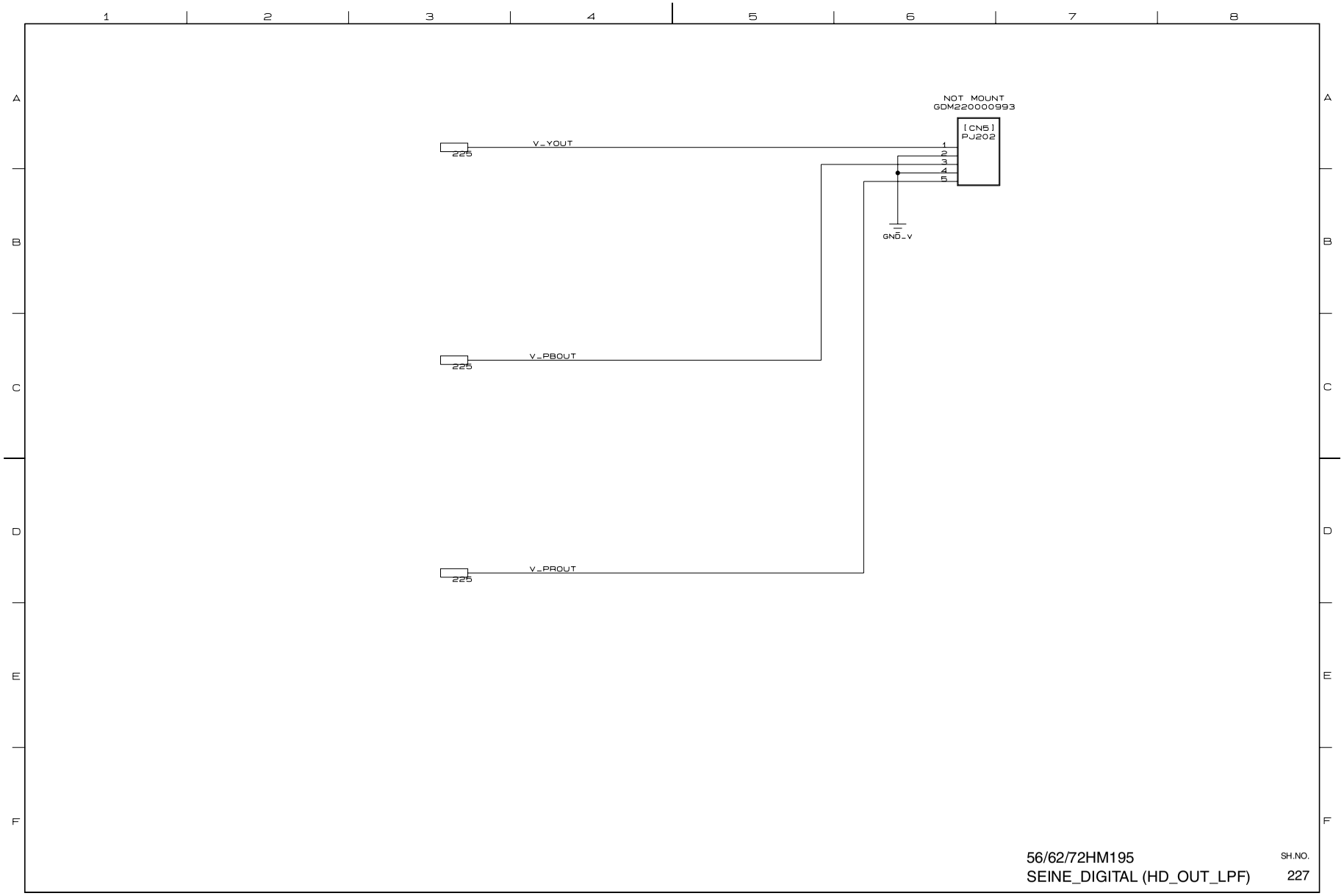
56/62/72HM195

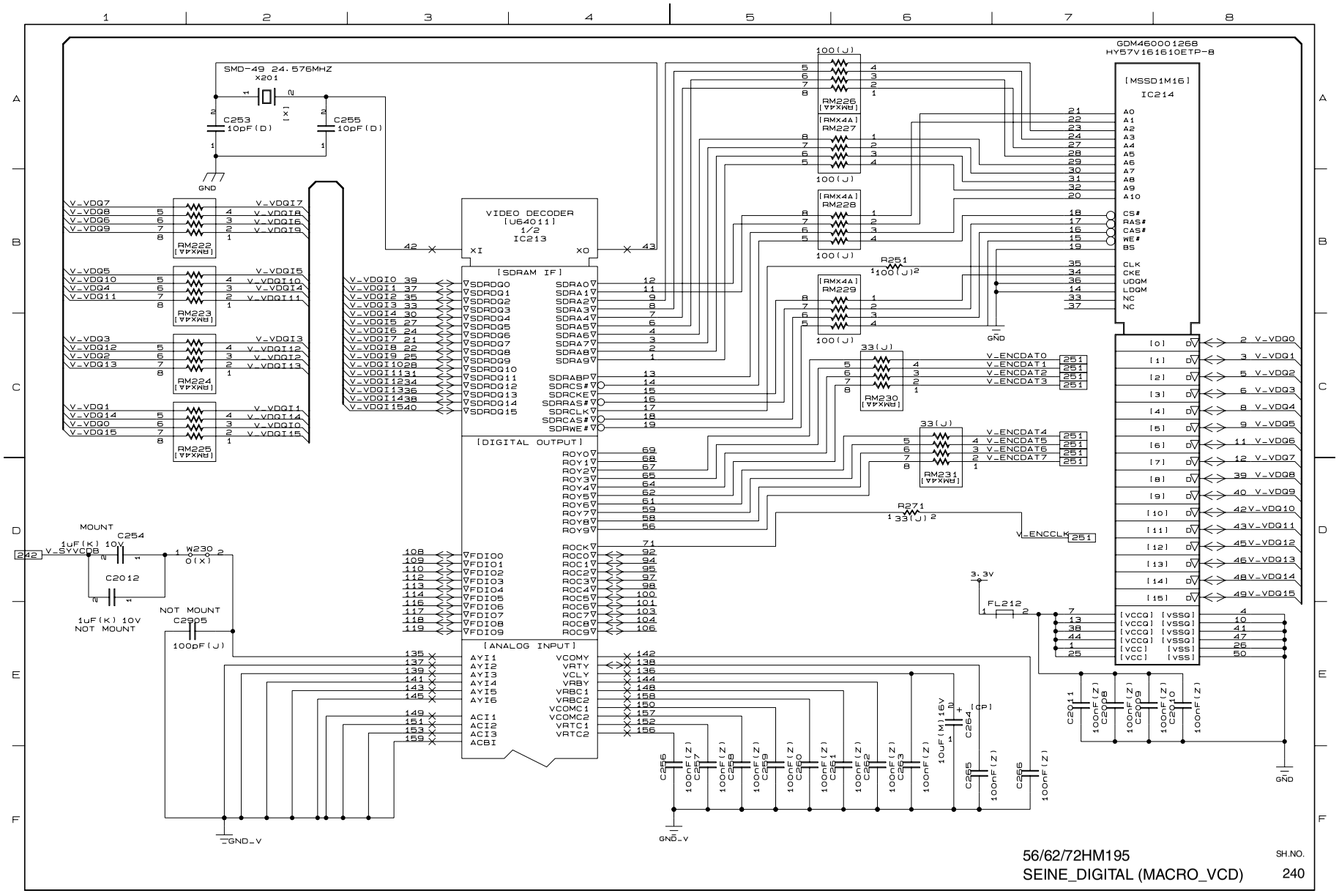
SEINE_DIGITAL (SEINE_BEP_IF)

SH.NO. 221

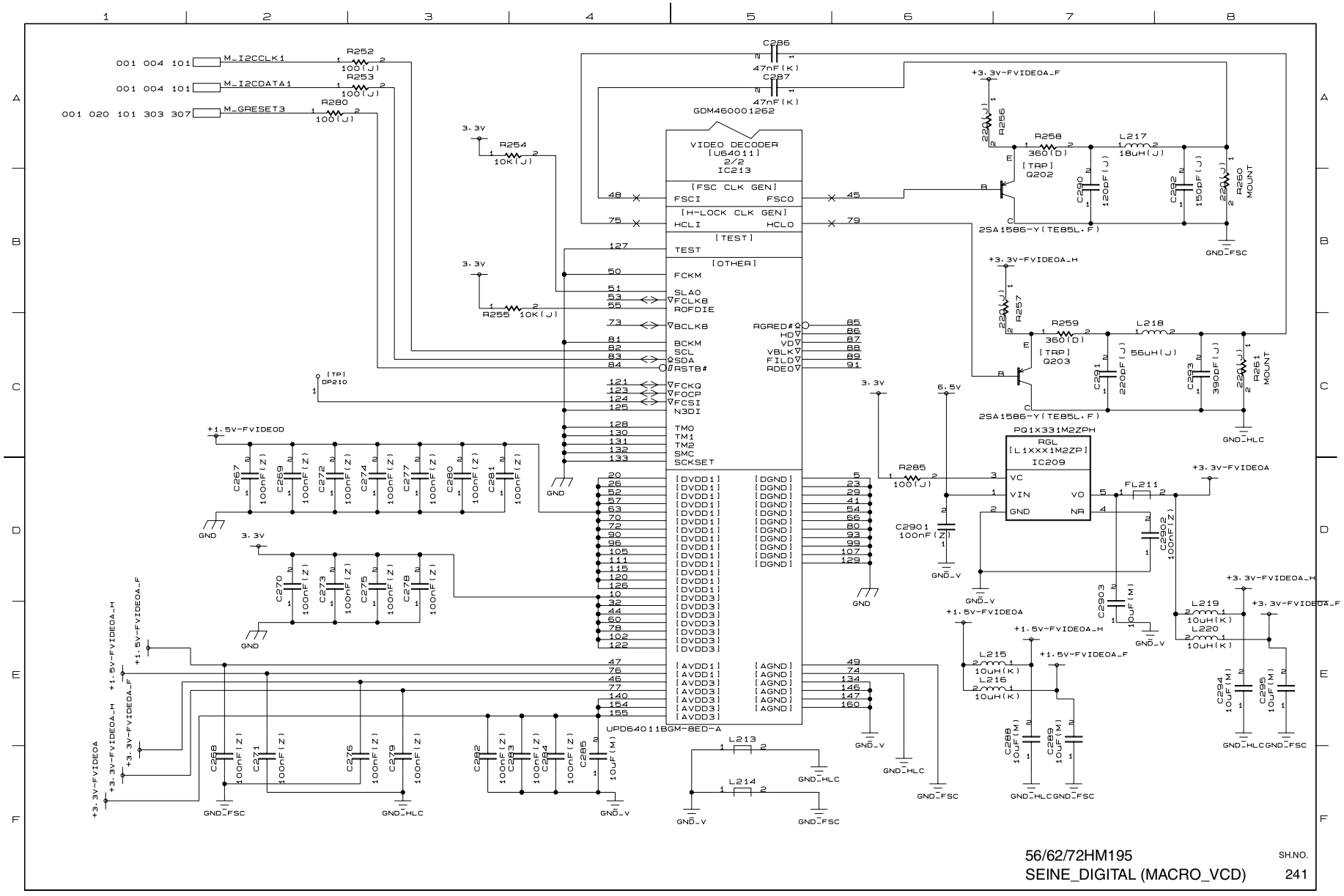

TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 10/13
[GB1240B]
IC1
[VIDEO OUT_A]
YOUT
PBOUT
PROUT
VCRYOUT
VCRCOUT
VCRCVOUT
YNEG
PBNEG
PRNEG
VCRYNEG
VCRCNEG
VCRCVNEG
HSYNC
VSYNC
FASTBLK
CSYNC1
CSYNCO
FSADJ_HD
FSADJ_VCR
VBS_HD
VBS_VCR
VREF_HD
VREF_VCR
DPVD_HD
DPVD_VCR
APVD_HD1
APVD_HD2
APVD_HD3
APVD_VCR1
APVD_VCR2
APVD_VCR3
DPVS_HD
DPVS_VCR
APVS_HD
APVS_VCR
+2.5V-SEINEDAC
V_YOUT
V_PBOUT
V_PROUT
V_VCRCVOUT
GND_V
56/62/72HM195
SEINE_DIGITAL (DAC_OUT)
SH.NO.
225

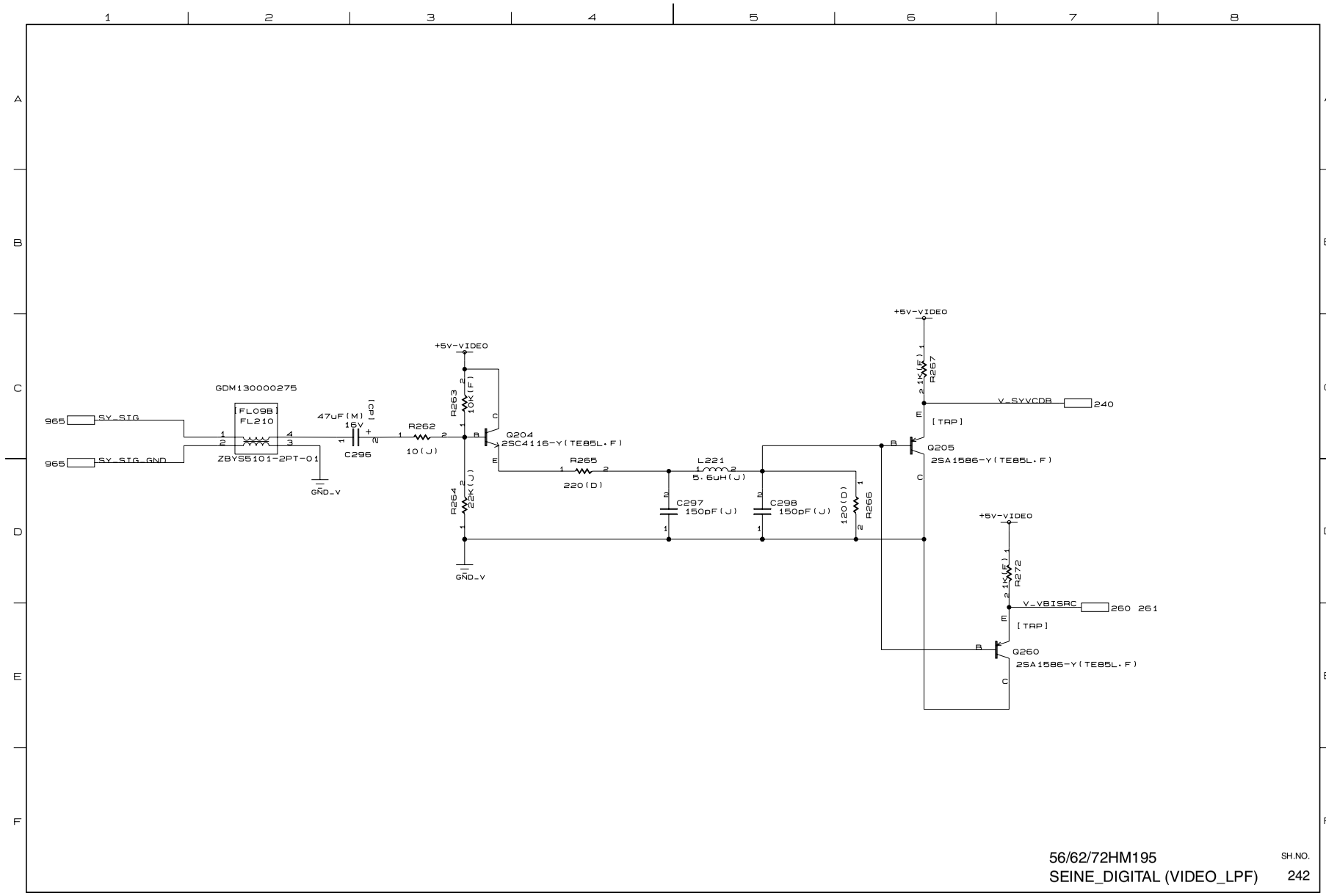

GDM470000856
GDM130000275
C242
1uF(Z)
V_VCRCVOUT
225
[L2571]
IC210
VIN
VOUT
POWER_SAVE
VSAG
V+
GND
NJM2571AF1(TE1)
+5V-VIDEO
100nF(Z)
C246
GND_V
[FL09B]
FL207
ZBYS5101-2PT-01
V_BS
965
V_BS_GND
965
PIO12
0 MUTE
1 NORMAL
005
M_VMUTER
L212
R241
68K(F)
56/62/72HM195
SEINE_DIGITAL (DOWN_CON_OUT_DRIVER)
SH.NO.
226


NOT MOUNT
GDM2200000993
[CN5]
PJ202
1
2
3
4
5
V_YOUT
225
V_PBOUT
225
V_PROUT
225
GND_V
56/62/72HM195
SEINE_DIGITAL (HD_OUT_LPF)
SH.NO.
227


SMD-49 24.576MHZ
X201
C253 10pF(D)
C255 10pF(D)
GND
VIDEO DECODER
[U64011]
1/2
IC213
XI
XO
[SDRAM IF]
[DIGITAL OUTPUT]
[ANALOG INPUT]
GDM46001268
HY57V161610ETP-8
[MSSD1M16]
IC214
RM222
RM223
RM224
RM225
RM226
RM227
RM228
RM229
RM230
RM231
R251 100(J)
R271 33(J)
V_ENCCLK
V_ENCDAT0
V_ENCDAT1
V_ENCDAT2
V_ENCDAT3
V_ENCDAT4
V_ENCDAT5
V_ENCDAT6
V_ENCDAT7
MOUNT
C254 1uF(K) 10V
V_SYVCDB
W230 0(X)
C2012 1uF(K) 10V NOT MOUNT
NOT MOUNT
C2905 100pF(J)
3.3V
FL212
C264 10uF(M)16V
GND_V
56/62/72HM195
SEINE_DIGITAL (MACRO_VCD)
SH.NO.
240

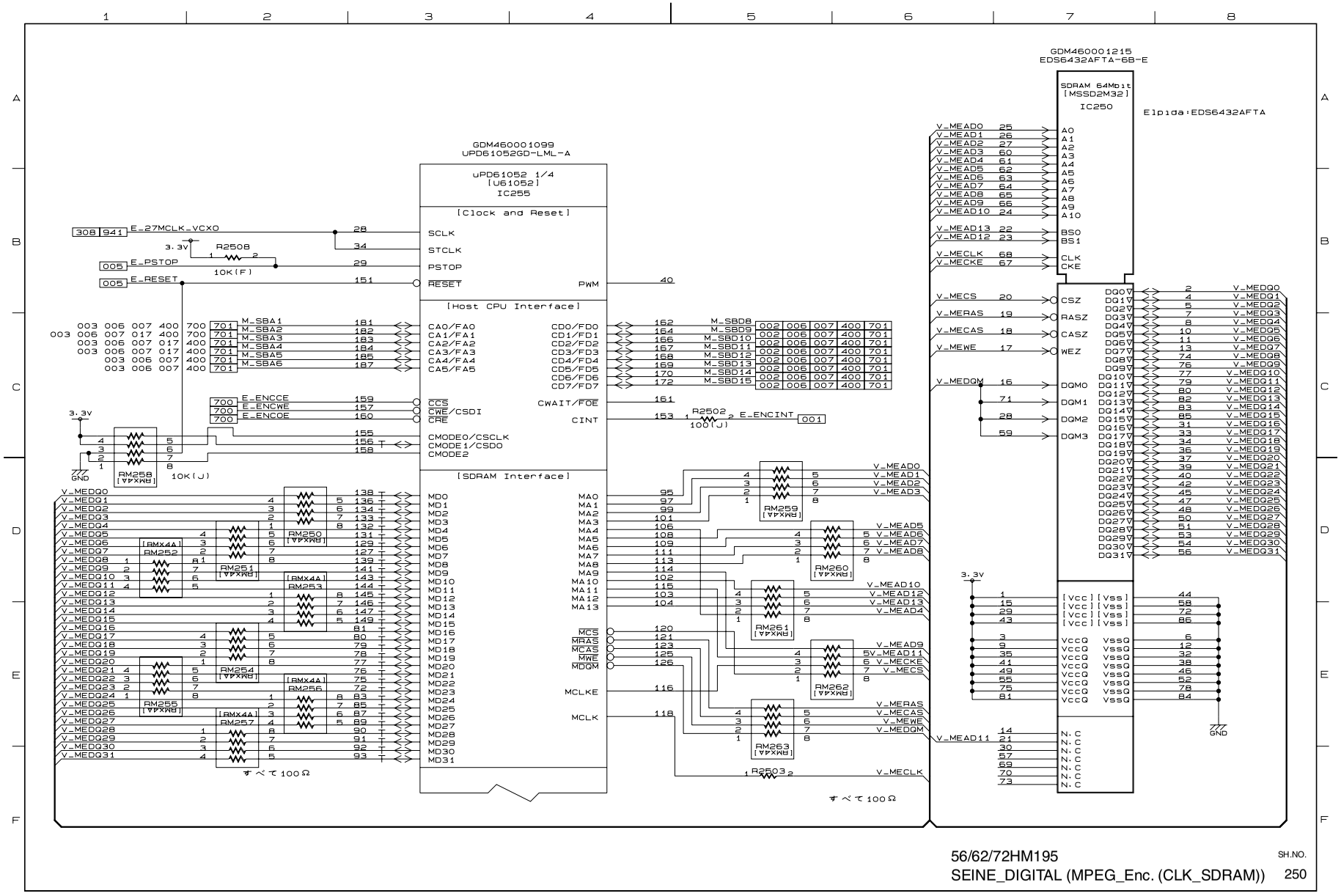
(106/146)


001 004 101 M_I2CCLK1
001 004 101 M_I2CDATA1
001 020 101 303 307 M_GRESET3
R252 100(J)
R253 100(J)
R280 100(J)
R254 10K(J)
R255 10K(J)
C286 47nF(K)
C287 47nF(K)
GDM460001262
VIDEO DECODER
[U64011]
2/2
IC213
[FSC CLK GEN]
FSCI
FSCO
[H-LOCK CLK GEN]
HCLI
HCLO
[TEST]
TEST
[OTHER]
FCKM
SLAO
FCLKB
ROFDIE
BCLKB
BCKM
SCL
SDA
RSTB#
FCKQ
FOCP
FCSI
N3DI
TMO
TM1
TM2
SMC
SCKSET
RGRED#
HD
VD
VBLK
FILD
RDEO
[DVDD1]
[DVDD3]
[DGND]
[AVDD1]
[AVDD3]
[AGND]
UPD64011BGM-8ED-A
[TP] DP210
+3.3V-FVIDEOA_F
+3.3V-FVIDEOA_H
+1.5V-FVIDEOD
+1.5V-FVIDEOA
+1.5V-FVIDEOA_H
+1.5V-FVIDEOA_F
+3.3V-FVIDEOA
3.3V
6.5V
GND
GND_V
GND_FSC
GND_HLC
R256 220(J)
R257 220(J)
R258 360(D)
R259 360(D)
R260 220(J) MOUNT
R261 220(J) MOUNT
L217 18uH(J)
L218 56uH(J)
[TRP] Q202
[TRP] Q203
2SA1586-Y(TE85L,F)
C290 120pF(J)
C291 220pF(J)
C292 150pF(J)
C293 390pF(J)
PQ1X331M2ZPH
RGL [L1XXX1M2ZP]
IC209
VC
VIN
VO
GND
NR
R285 100(J)
C2901 100nF(Z)
C2902 100nF(Z)
C2903 10uF(M)
FL211
L219 10uH(K)
L220 10uH(K)
L215 10uH(K)
L216 10uH(K)
C294 10uF(M)
C295 10uF(M)
C288 10uF(M)
C289 10uF(M)
C267 100nF(Z)
C269 100nF(Z)
C272 100nF(Z)
C274 100nF(Z)
C277 100nF(Z)
C280 100nF(Z)
C281 100nF(Z)
C270 100nF(Z)
C273 100nF(Z)
C275 100nF(Z)
C278 100nF(Z)
C268 100nF(Z)
C271 100nF(Z)
C276 100nF(Z)
C279 100nF(Z)
C282 100nF(Z)
C283 100nF(Z)
C284 100nF(Z)
C285 10uF(M)
L213
L214
56/62/72HM195
SEINE_DIGITAL (MACRO_VCD)
SH.NO.
241



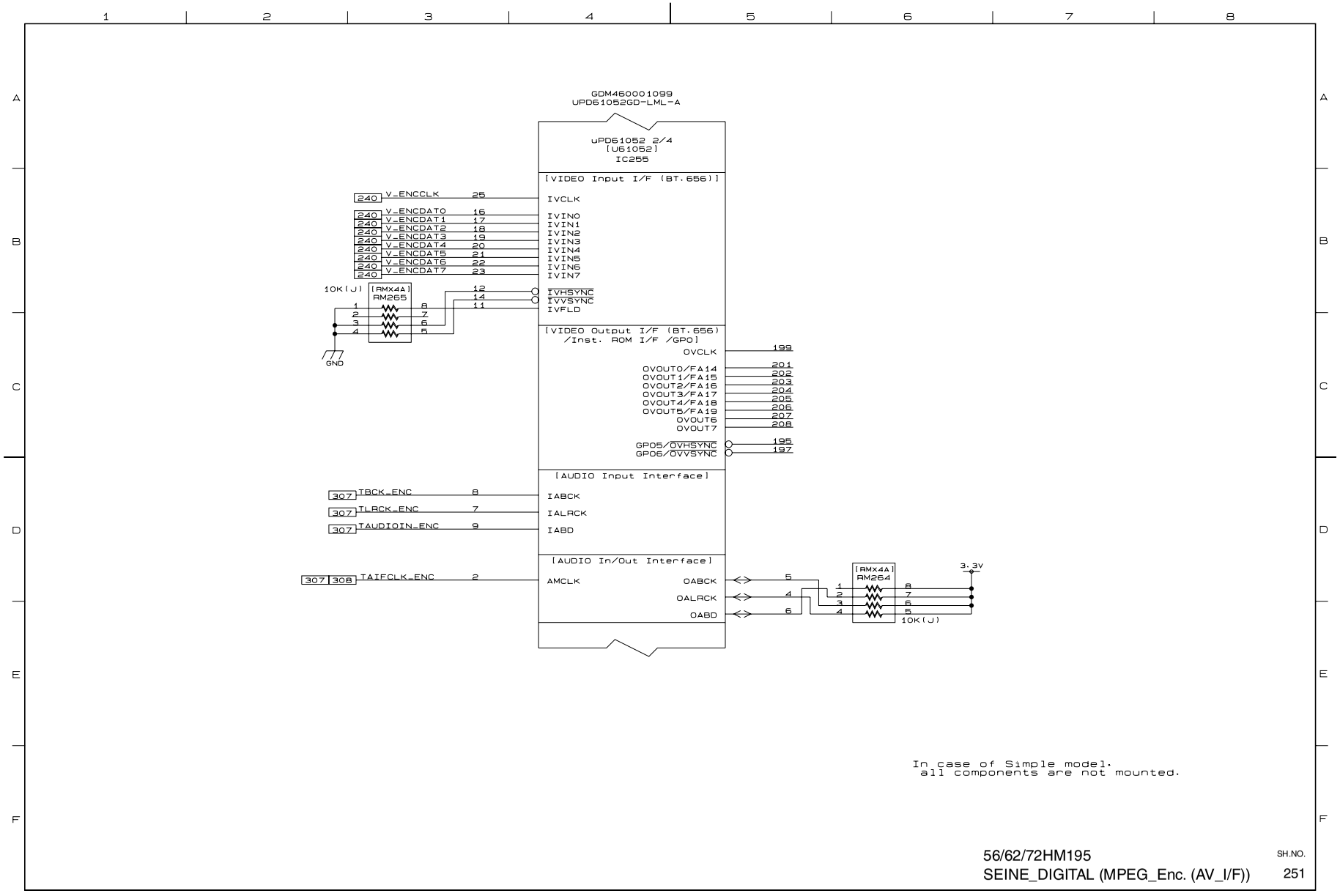
56/62/72HM195
SEINE_DIGITAL (VIDEO_LPF)

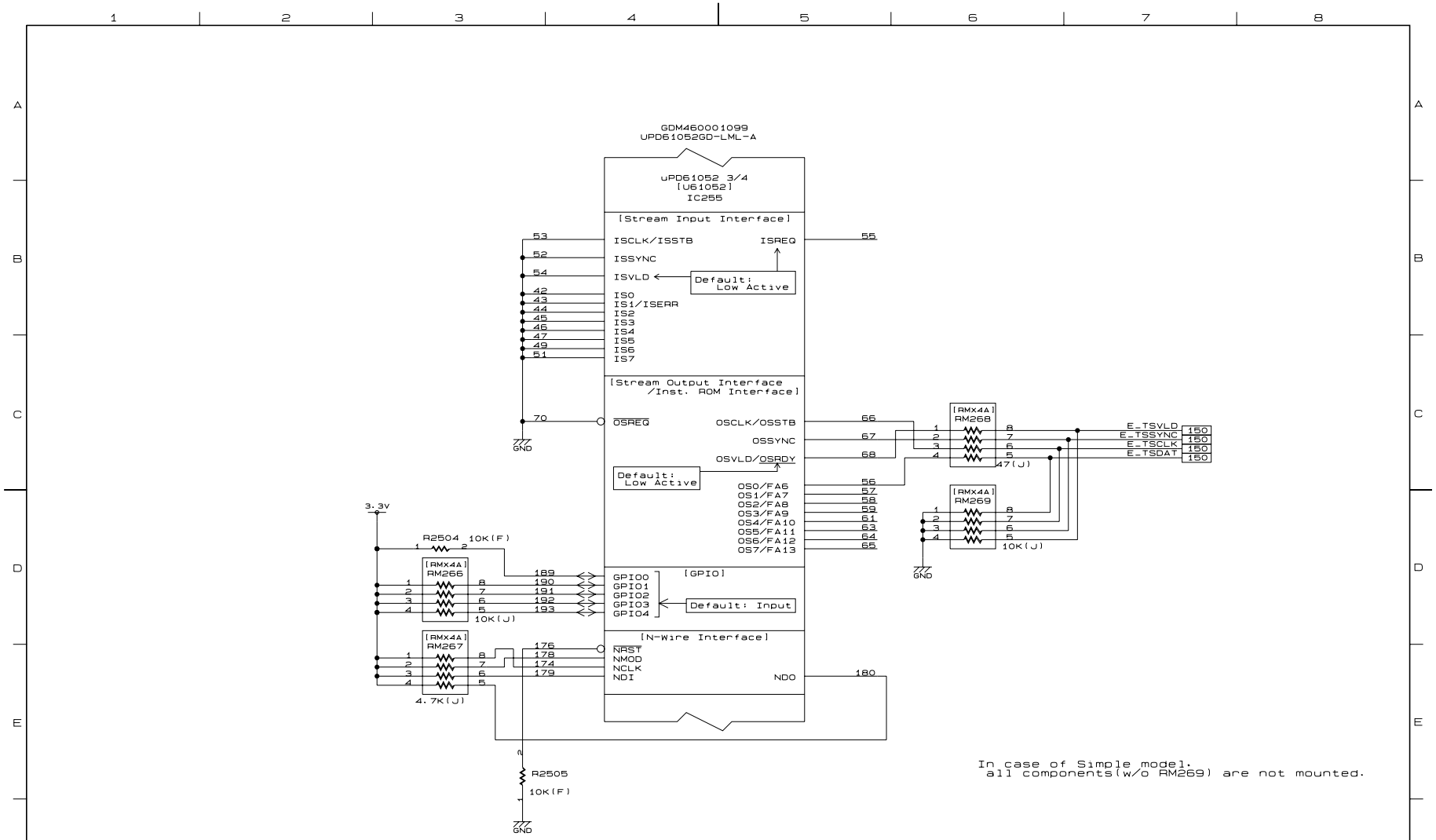
SH.NO.
242



56/62/72HM195
SEINE_DIGITAL (MPEG_Enc. (CLK_SDRAM))

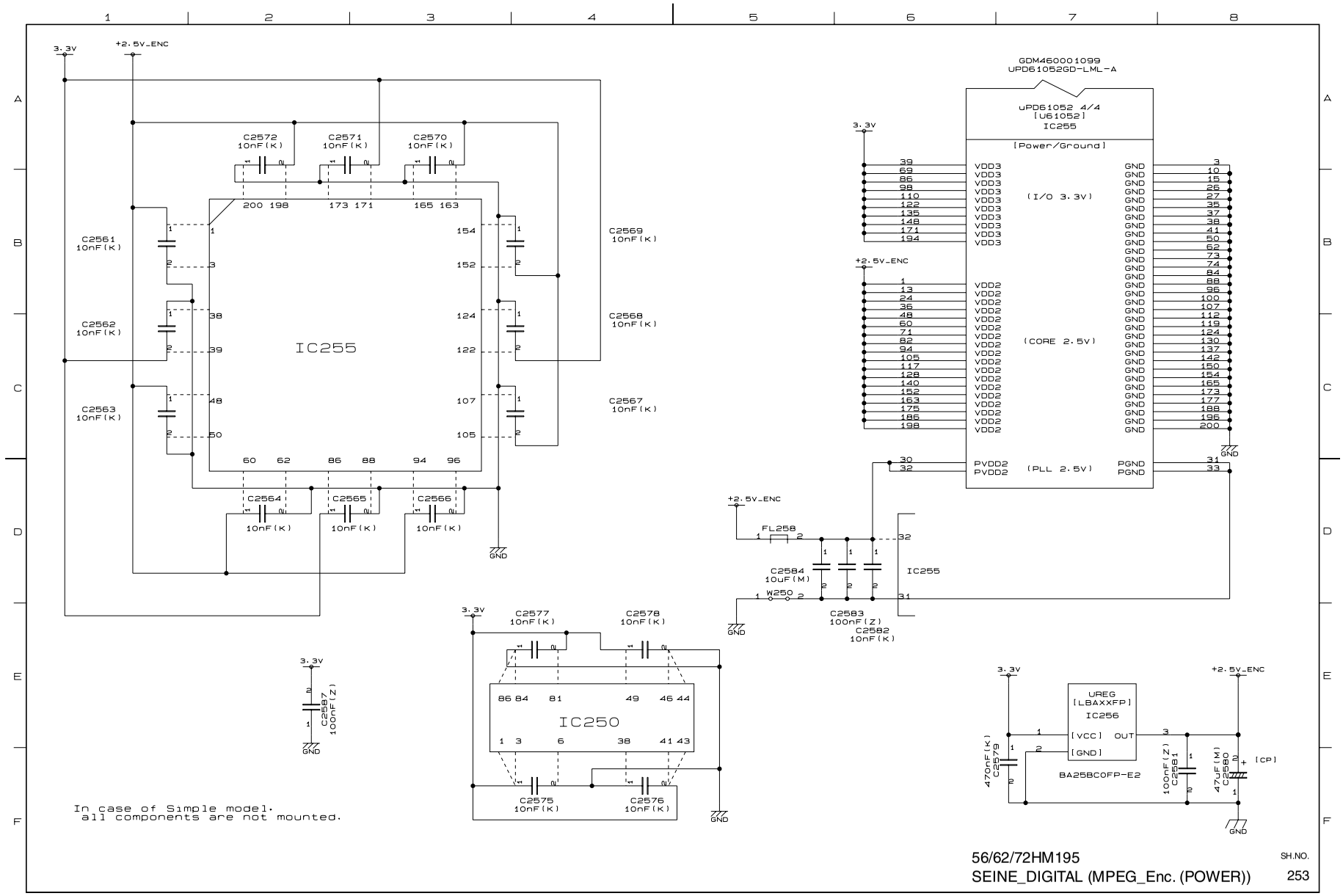
SH.NO. 250


GDM460001099
UPD61052GD-LML-A
uPD61052 2/4
[U61052]
IC255
[VIDEO Input I/F (BT.656)]
IVCLK
IVIN0
IVIN1
IVIN2
IVIN3
IVIN4
IVIN5
IVIN6
IVIN7
IVHSYNC
IVVSYNC
IVFLD
V-ENCCLK
V-ENCDAT0
V-ENCDAT1
V-ENCDAT2
V-ENCDAT3
V-ENCDAT4
V-ENCDAT5
V-ENCDAT6
V-ENCDAT7
240
10K(J)
[RMx4A]
RM265
GND
[VIDEO Output I/F (BT.656)
/Inst. ROM I/F /GPO]
OVCLK
OVOUT0/FA14
OVOUT1/FA15
OVOUT2/FA16
OVOUT3/FA17
OVOUT4/FA18
OVOUT5/FA19
OVOUT6
OVOUT7
GPO5/OVHSYNC
GPO6/OVVSYNC
[AUDIO Input Interface]
IABCK
IALRCK
IABD
TBCK_ENC
TLRCK_ENC
TAUDIOIN_ENC
307
[AUDIO In/Out Interface]
AMCLK
OABCK
OALRCK
OABD
TAIFCLK_ENC
308
[RMx4A]
RM264
3.3V
10K(J)
In case of Simple model.
all components are not mounted.
56/62/72HM195
SEINE_DIGITAL (MPEG_Enc. (AV_I/F))
SH.NO.
251



56/62/72HM195
SEINE_DIGITAL (MPEG_Enc. (STREAM_I/F))

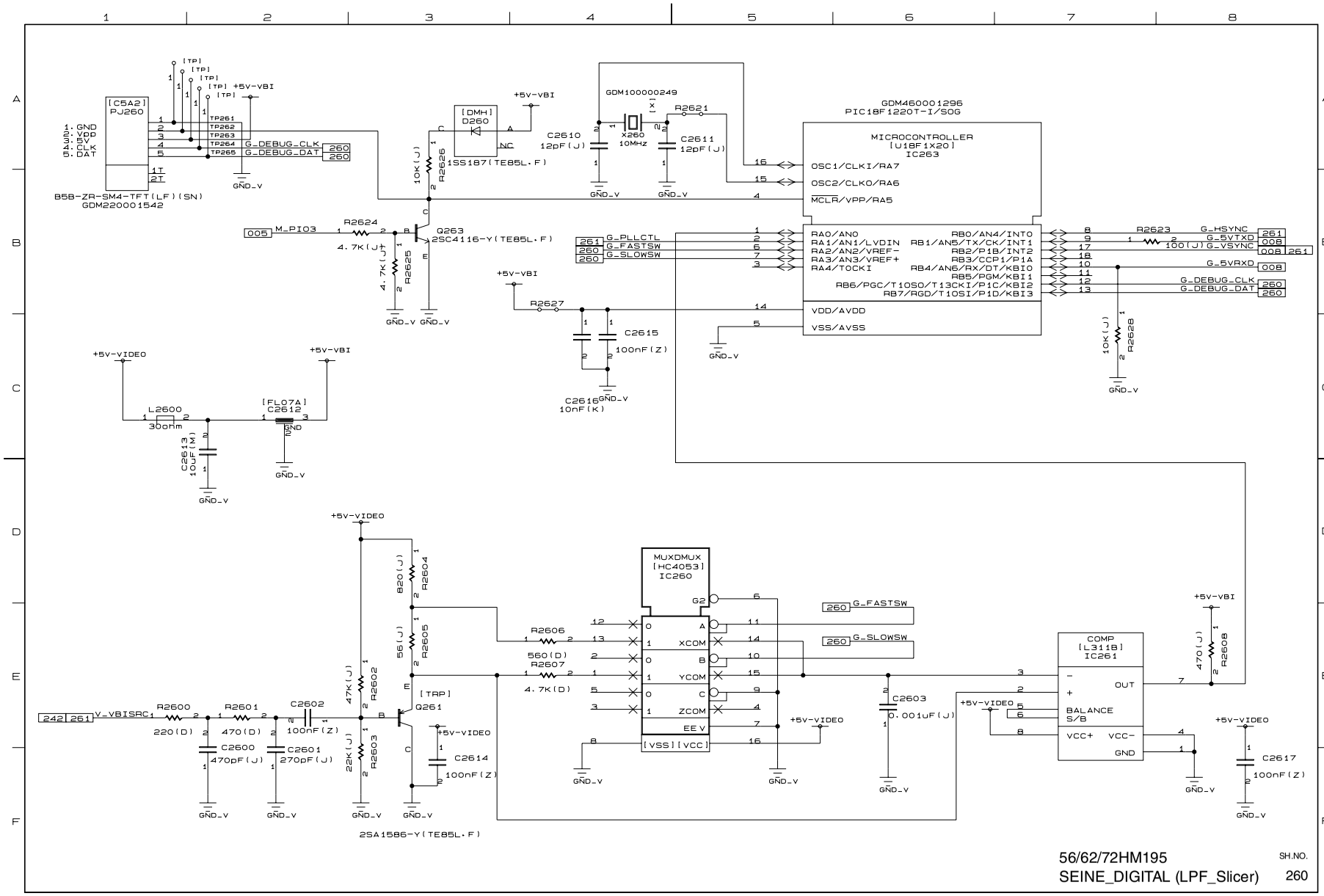
SH.NO.
252

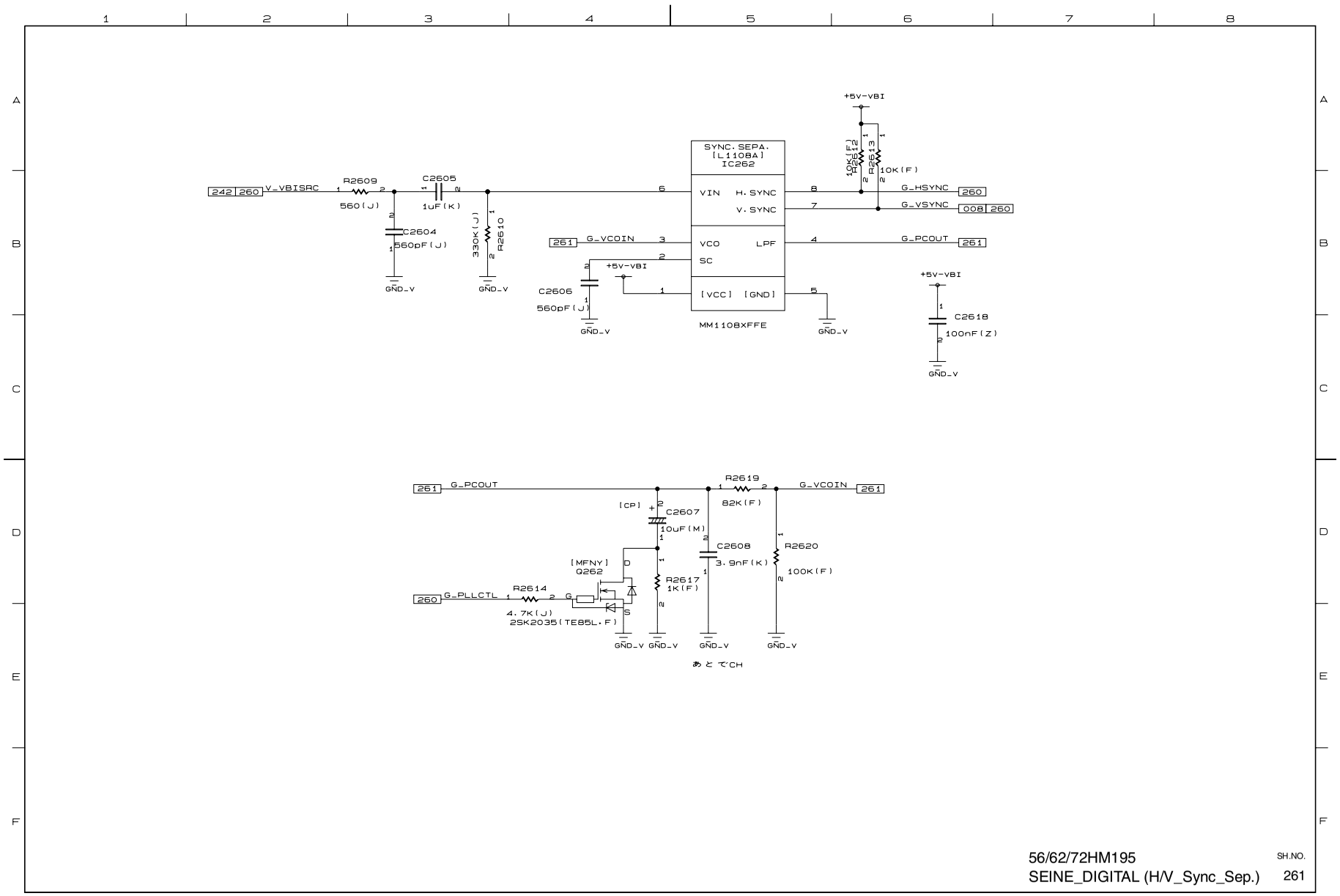


In case of Simple model.
all components are not mounted.

56/62/72HM195
SEINE_DIGITAL (MPEG_Enc. (POWER))

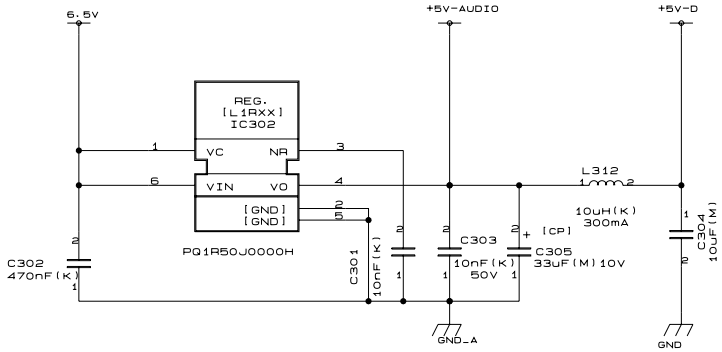
SH.NO. 253


56/62/72HM195
SEINE_DIGITAL (LPF_Slicer)
SH.NO.
260



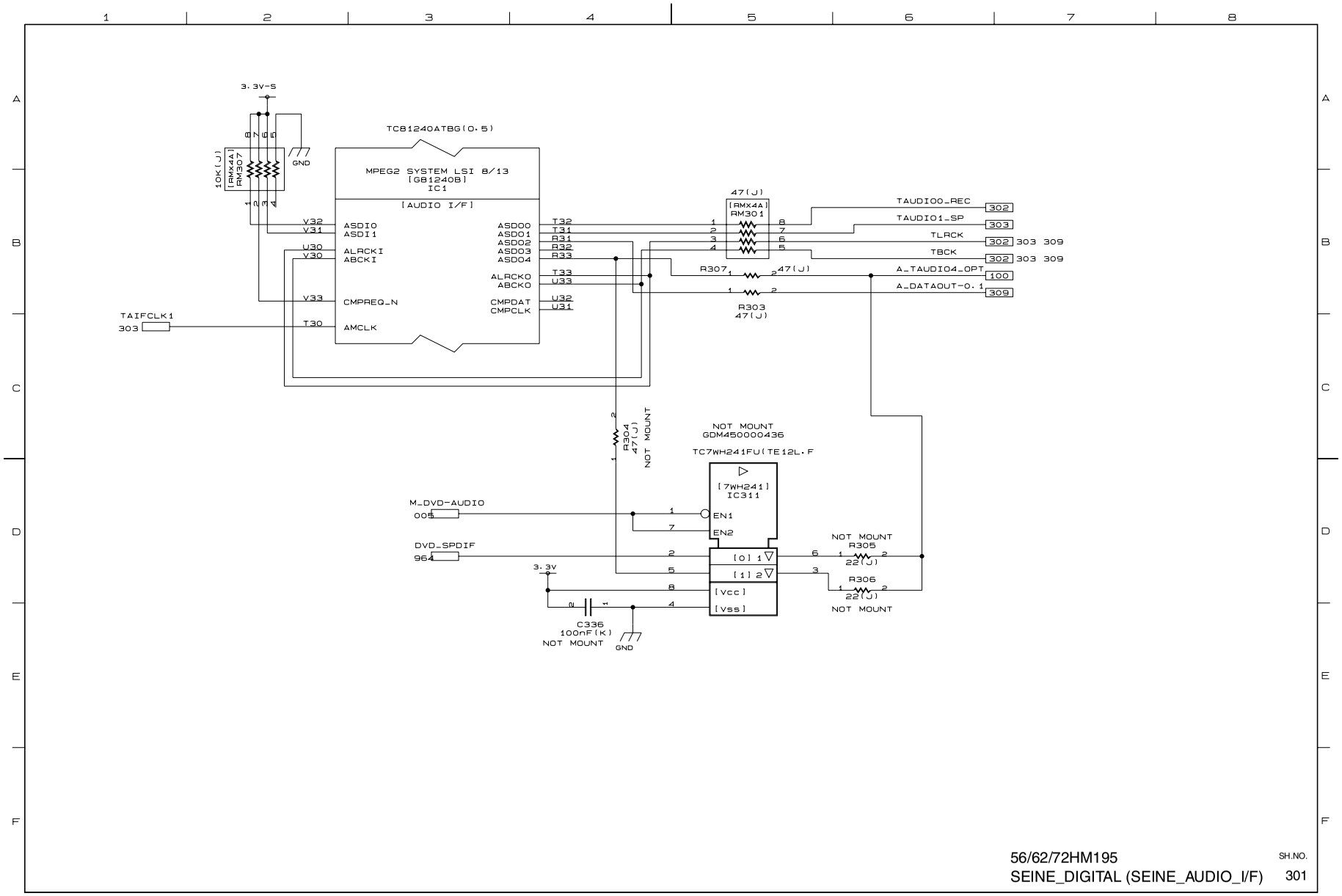
56/62/72HM195
SEINE_DIGITAL (H/V_Sync_Sep.)

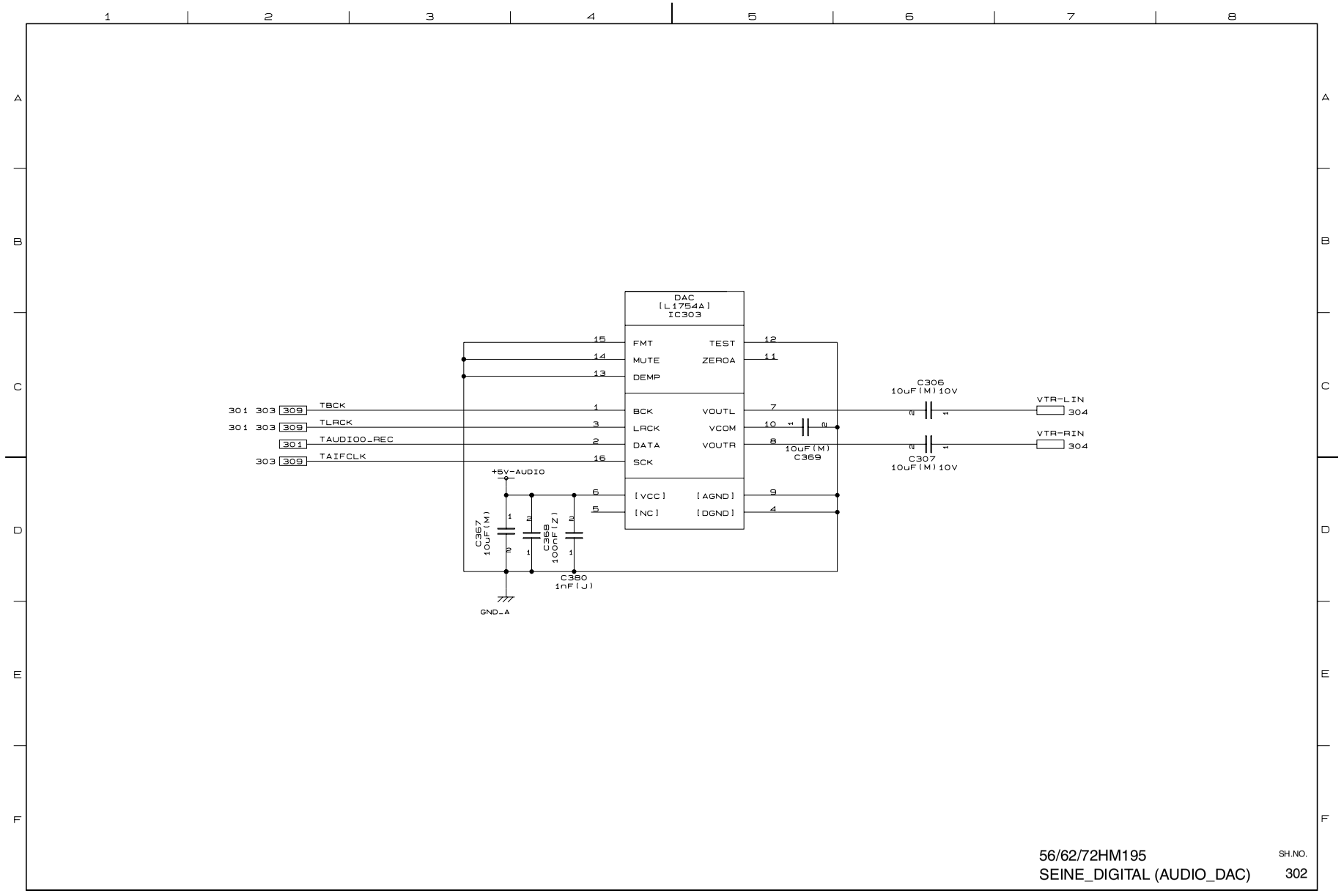
SH.NO. 261



56/62/72HM195
SEINE_DIGITAL (AUDIO_POWER)

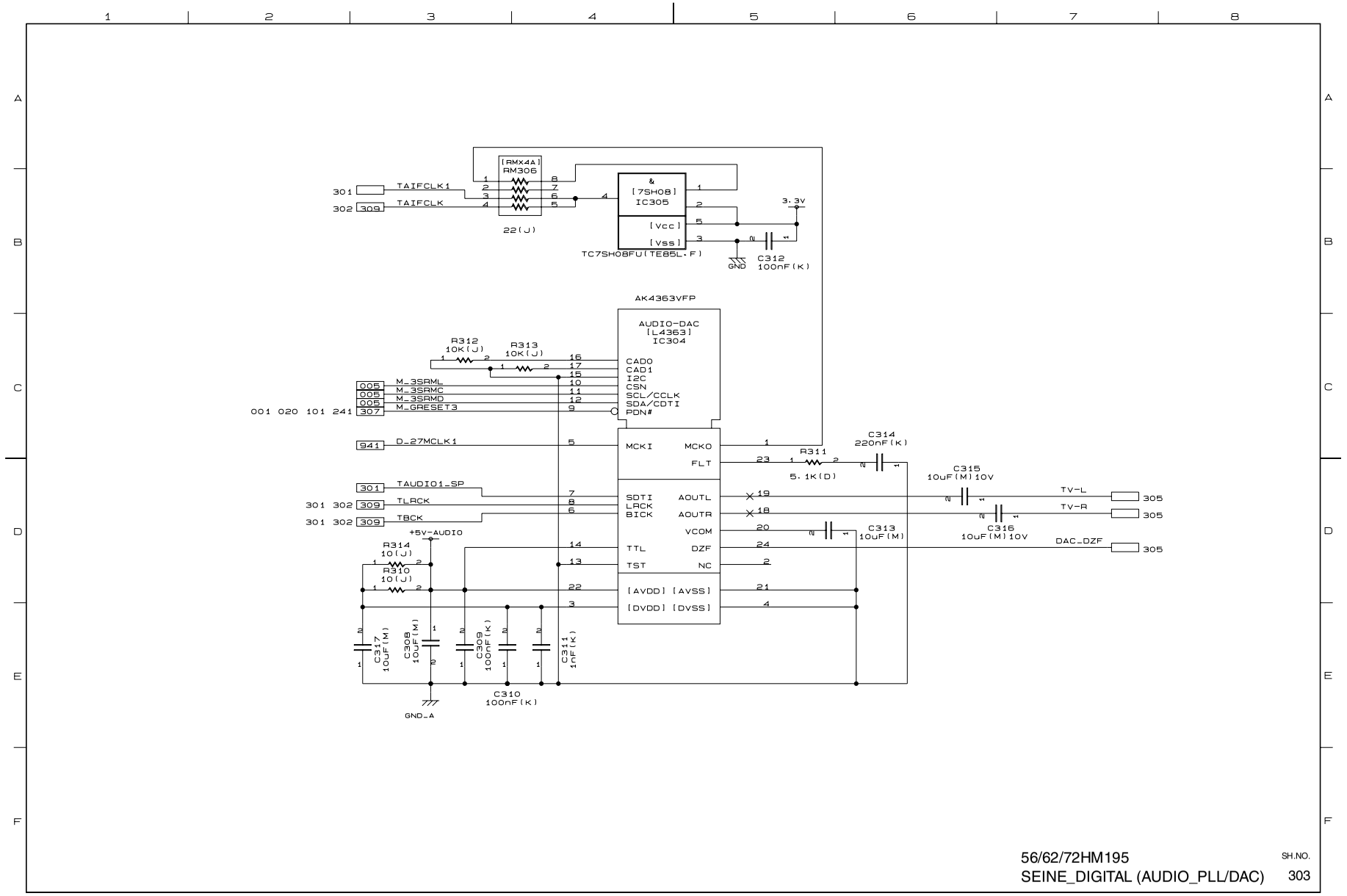
SH.NO.
300


3.3V-S
10K(J)
[RMX4A]
RM307
GND
TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 8/13
[GB1240B]
IC1
[AUDIO I/F]
ASDIO
ASDI1
ALRCKI
ABCKI
CMPREQ_N
AMCLK
ASDO0
ASDO1
ASDO2
ASDO3
ASDO4
ALRCKO
ABCKO
CMPDAT
CMPCLK
TAIFCLK1
303
47(J)
[RMX4A]
RM301
TAUDIO0_REC
TAUDIO1_SP
TLRCK
TBCK
A_TAUDIO4_OPT
A_DATAOUT-0.1
R307
47(J)
R303
47(J)
R304
47(J)
NOT MOUNT
NOT MOUNT
GDM450000436
TC7WH241FU(TE12L.F
[7WH241]
IC311
M_DVD-AUDIO
005
DVD_SPDIF
964
EN1
EN2
[0] 1
[1] 2
[Vcc]
[Vss]
3.3V
C336
100nF(K)
NOT MOUNT
GND
NOT MOUNT
R305
22(J)
R306
22(J)
NOT MOUNT
56/62/72HM195
SEINE_DIGITAL (SEINE_AUDIO_I/F)
SH.NO.
301



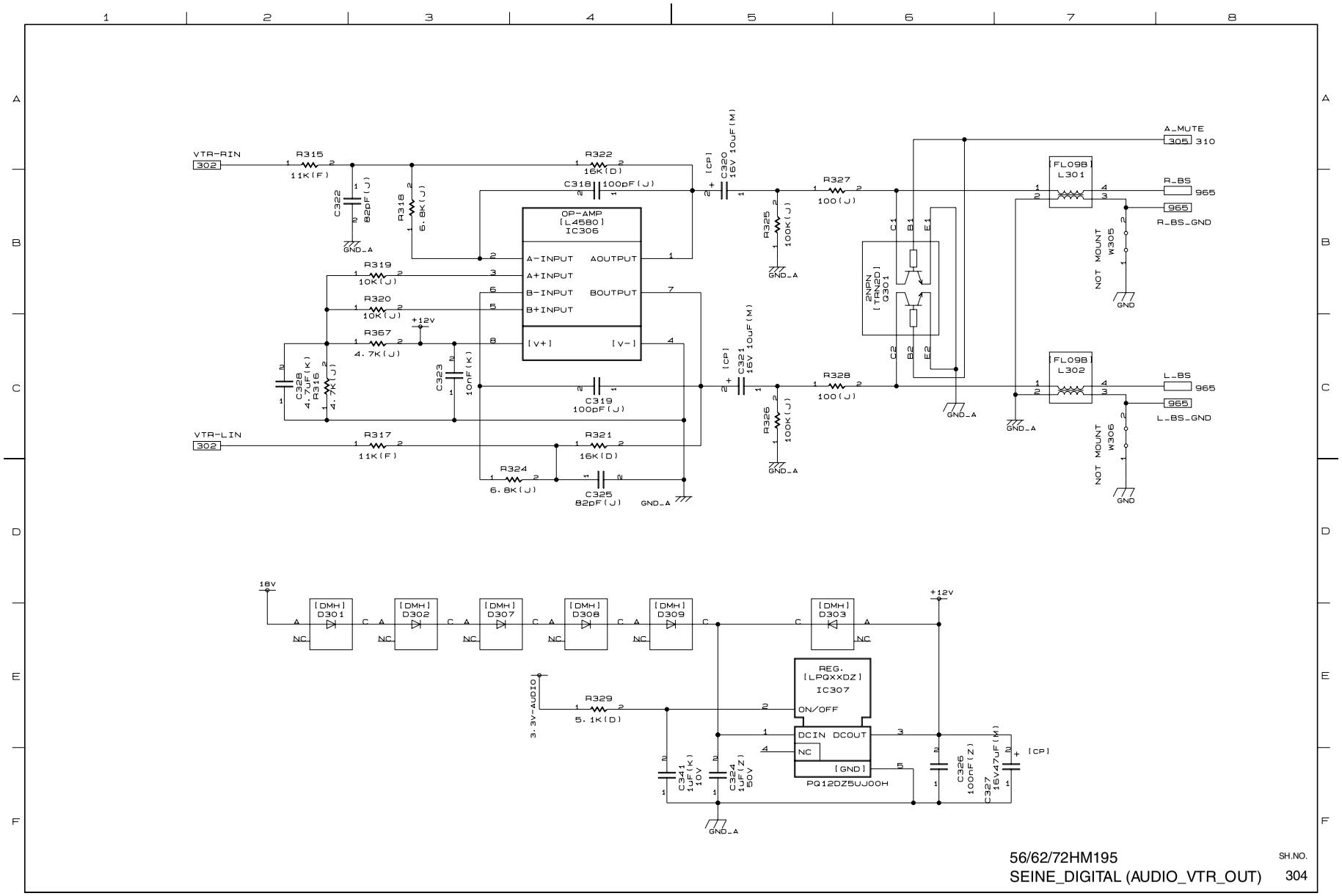
56/62/72HM195
SEINE_DIGITAL (AUDIO_DAC)

SH.NO.
302



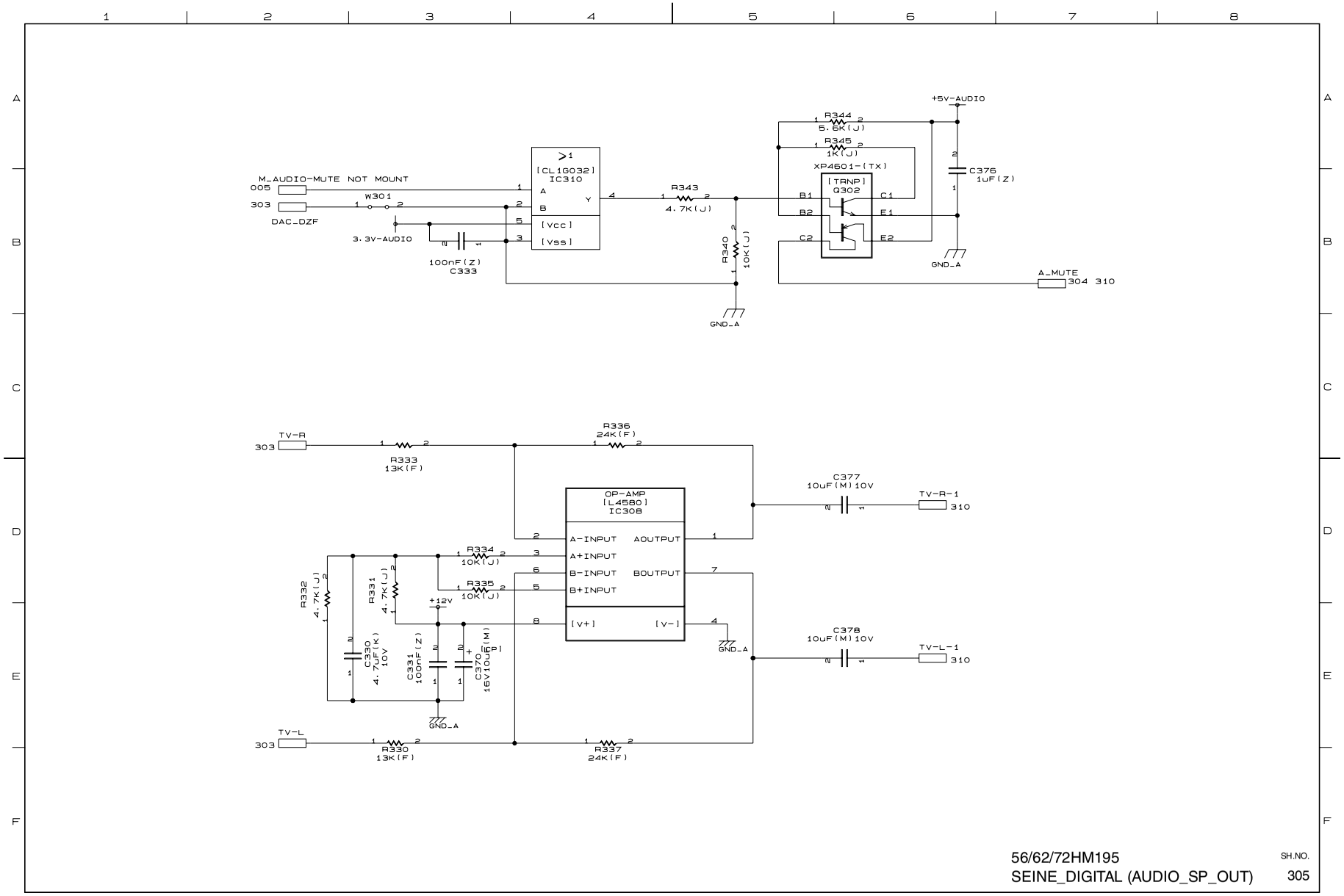
56/62/72HM195
SEINE_DIGITAL (AUDIO_PLL/DAC)

SH.NO. 303



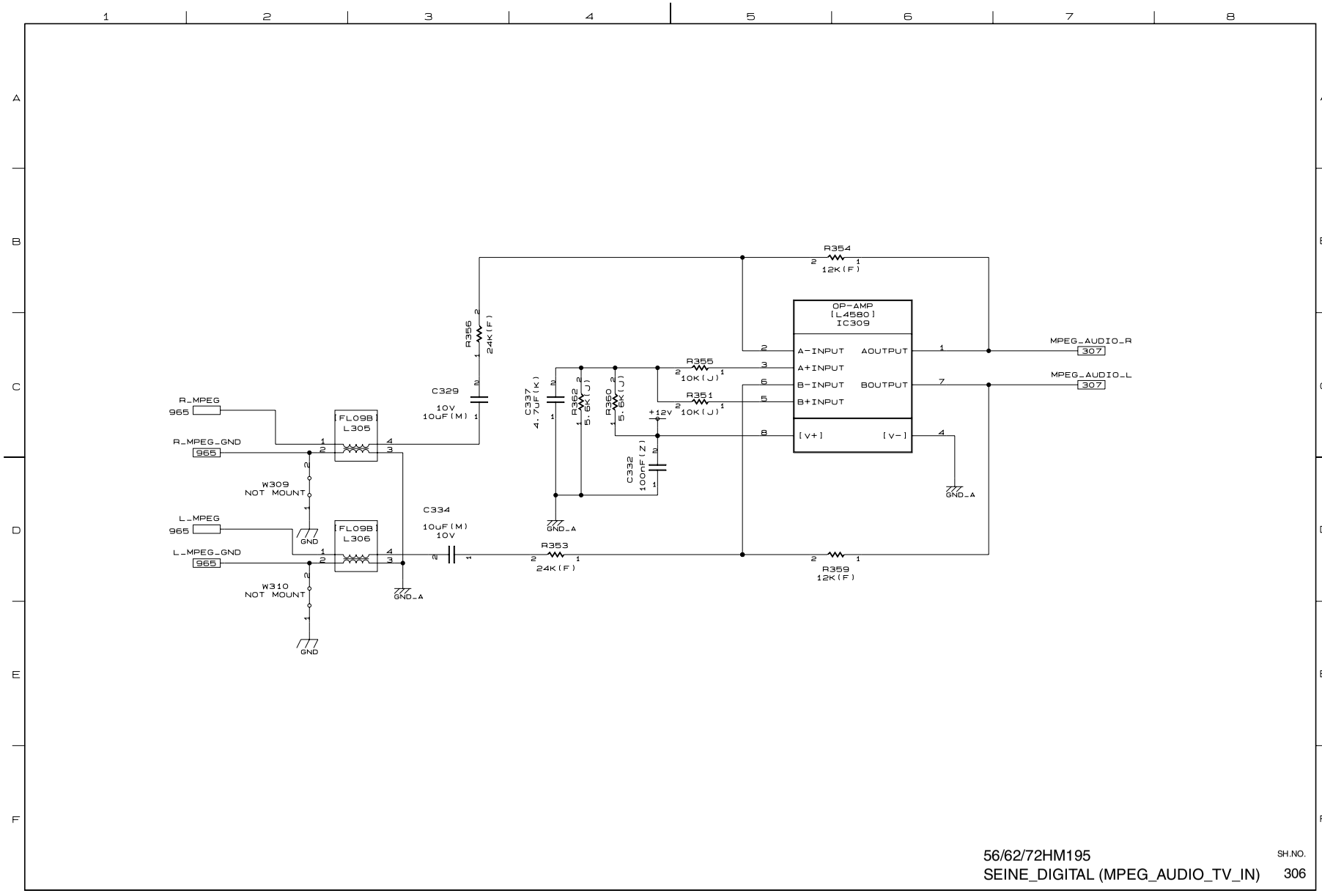
56/62/72HM195
SEINE_DIGITAL (AUDIO_VTR_OUT)

SH.NO.
304



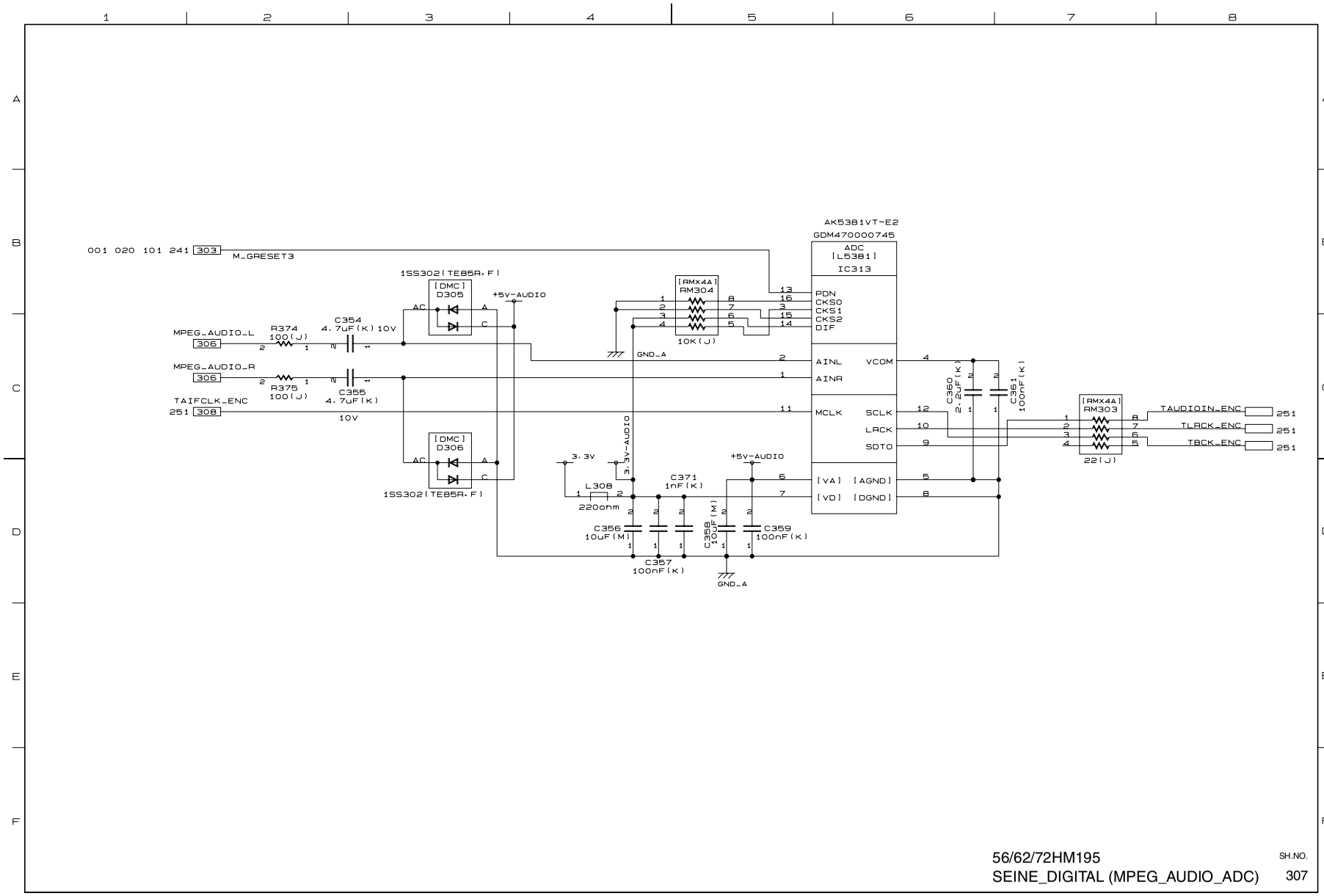
56/62/72HM195
SEINE_DIGITAL (AUDIO_SP_OUT)

SH.NO.
305



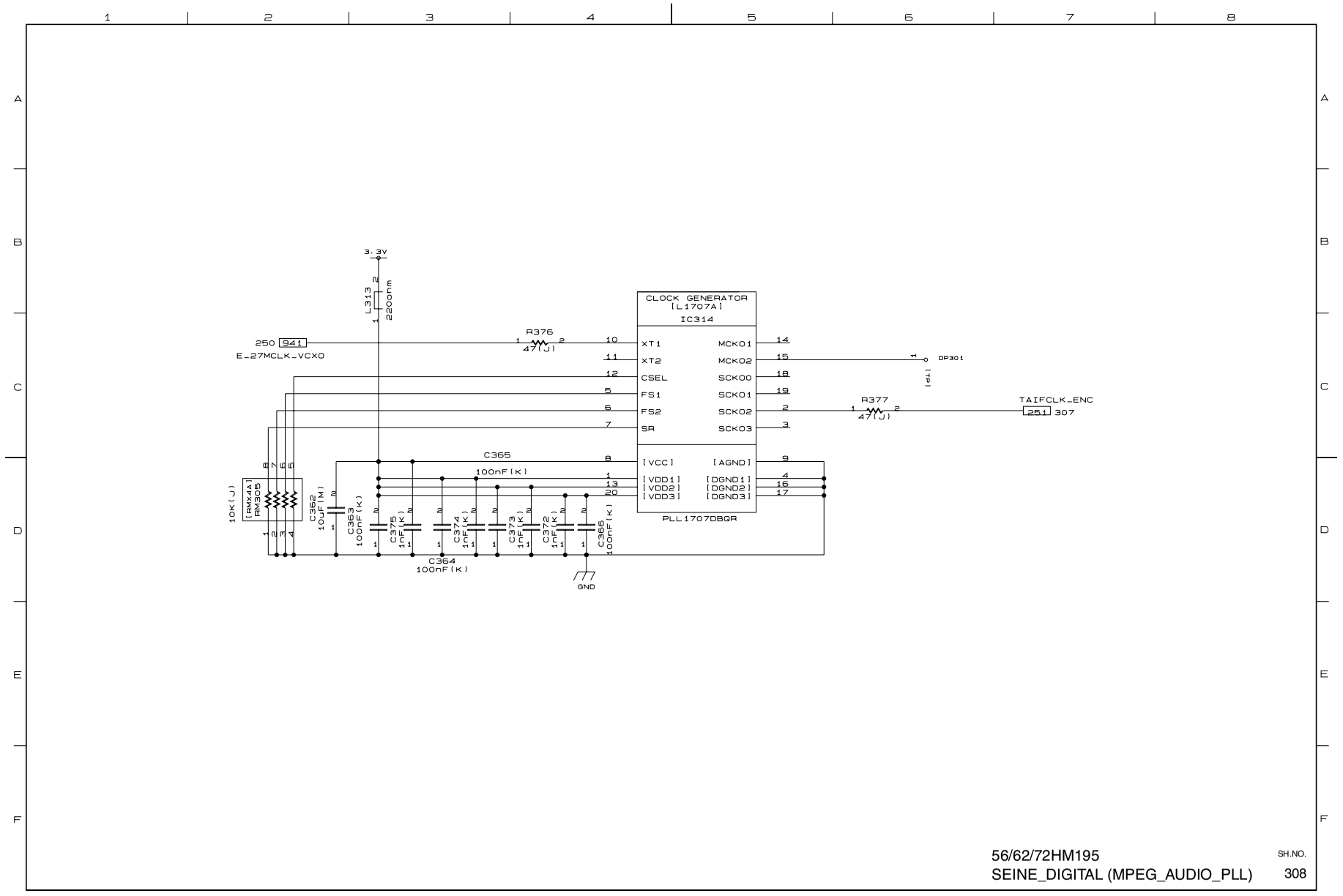
56/62/72HM195
SEINE_DIGITAL (MPEG_AUDIO_TV_IN)

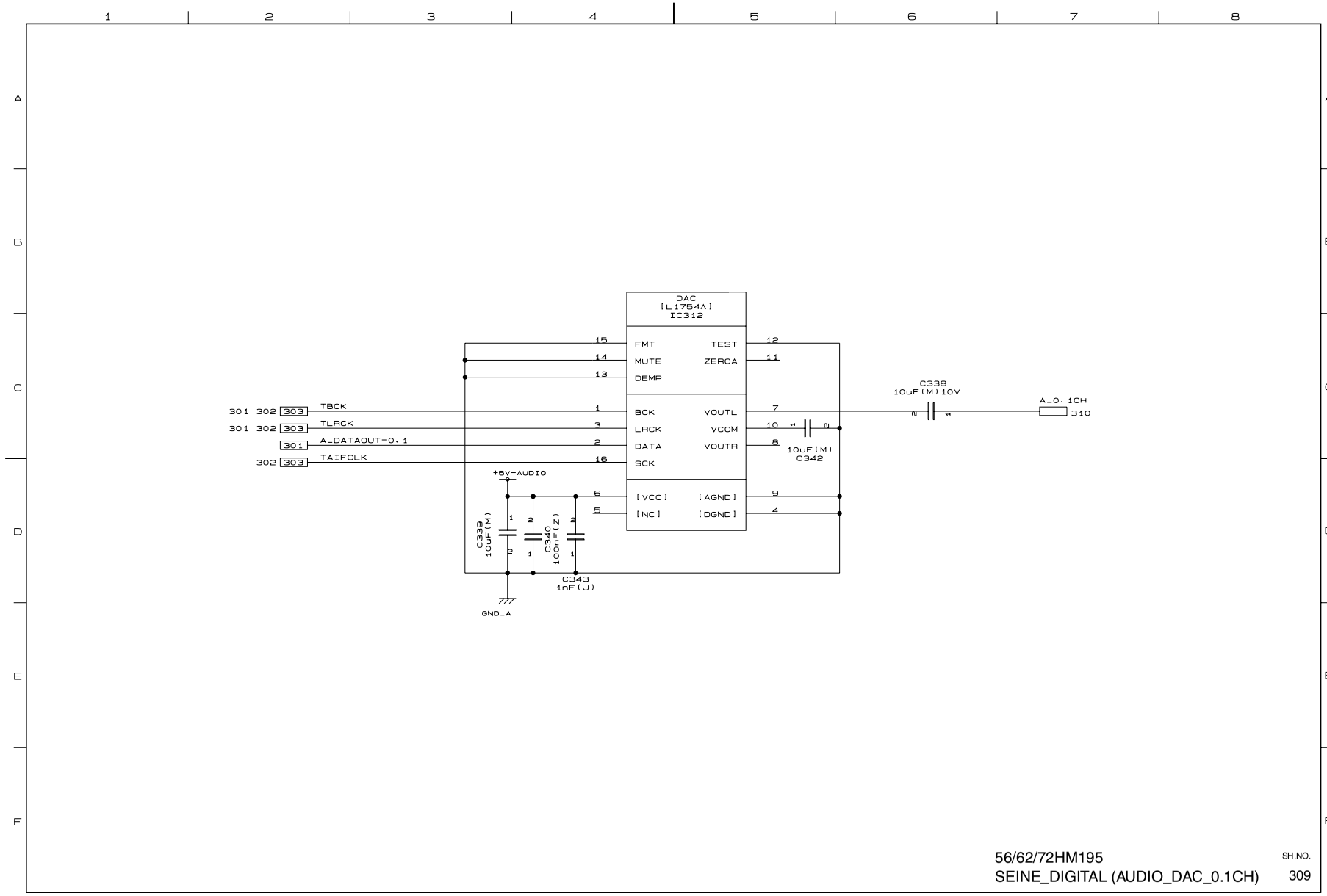
SH.NO.
306

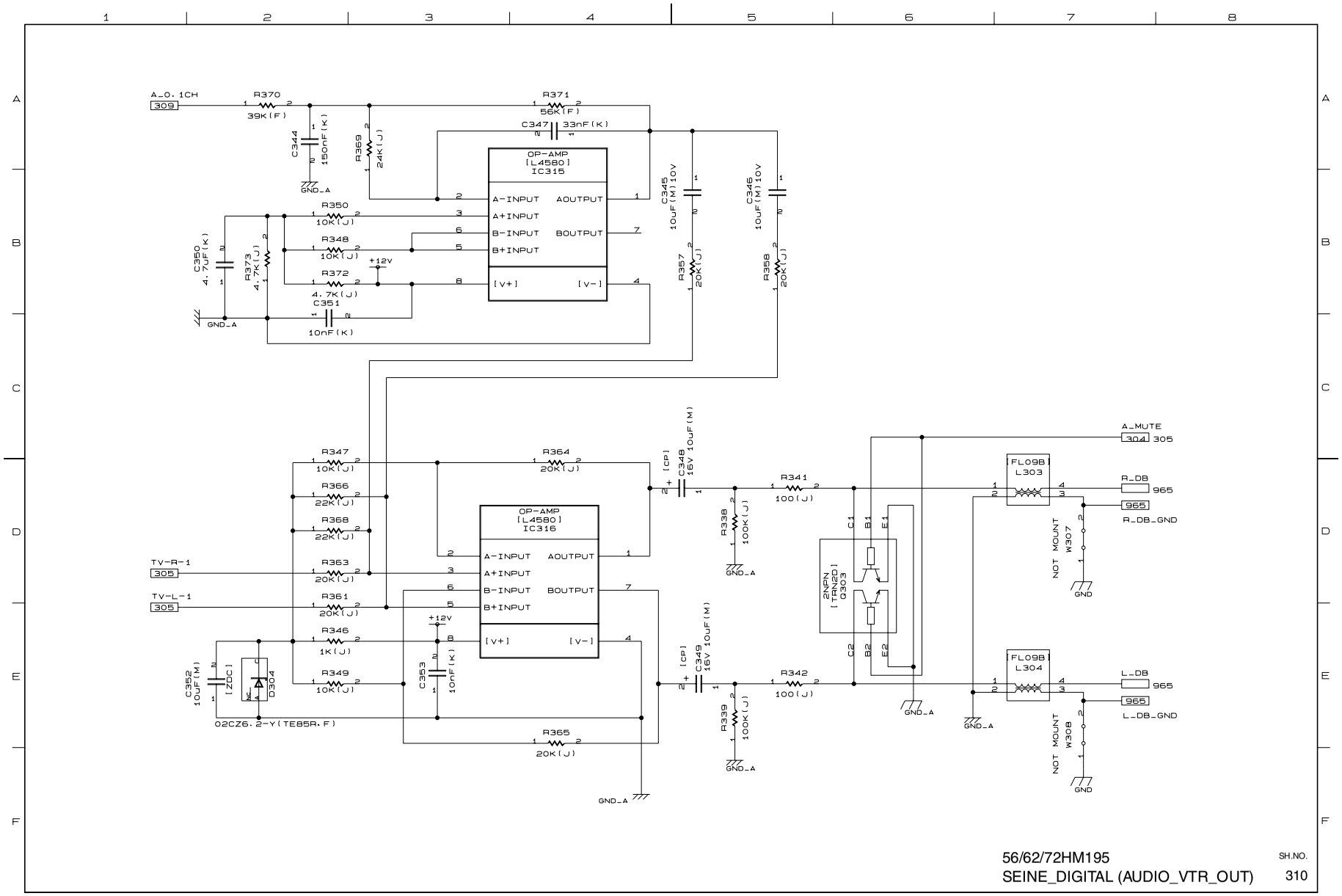


56/62/72HM195
SEINE_DIGITAL (MPEG_AUDIO_ADC)

SH.NO.
307

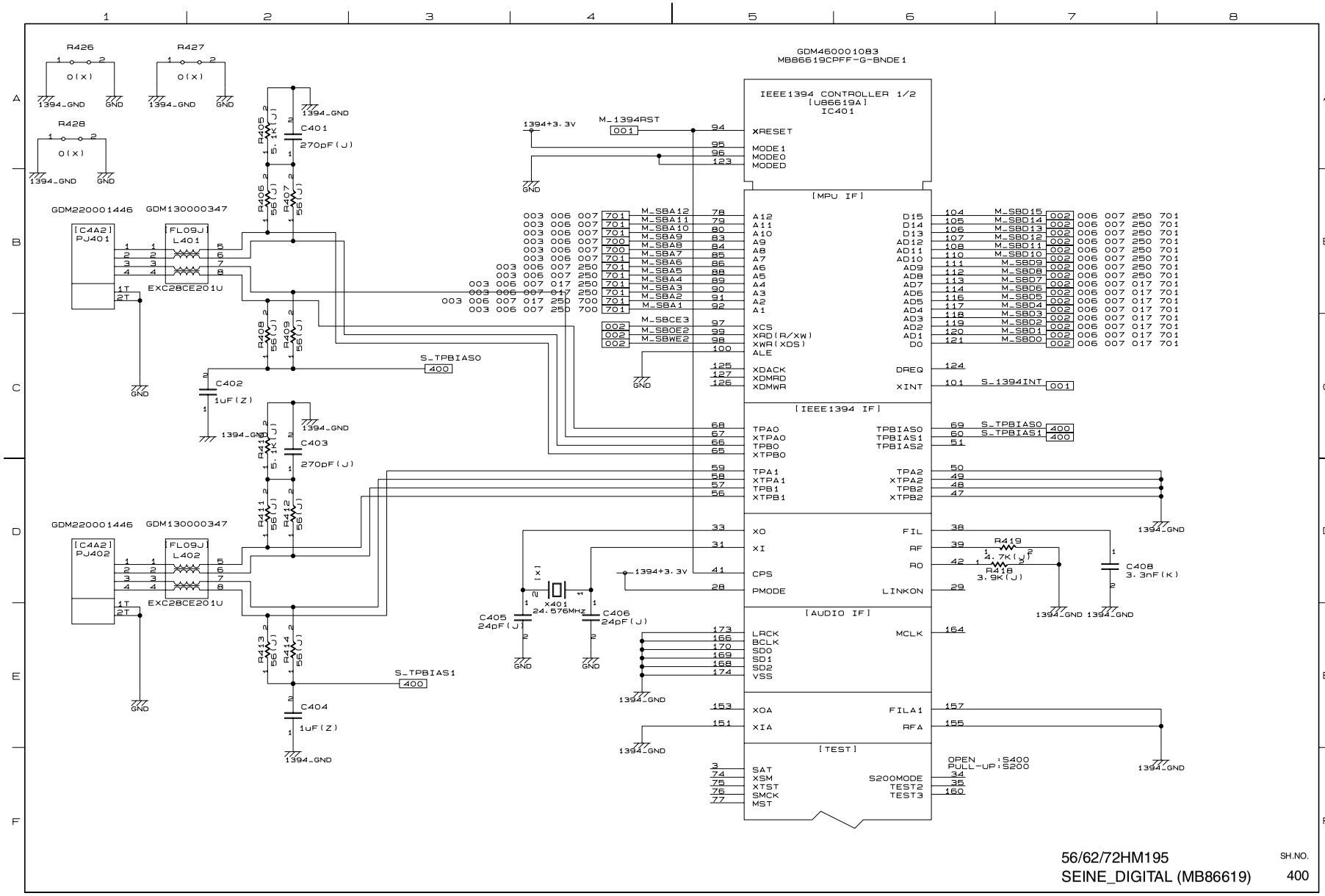

3.3V
L313
220ohm
CLOCK GENERATOR
[L1707A]
IC314
250 941
E_27MCLK_VCXO
R376
47(J)
XT1
XT2
CSEL
FS1
FS2
SR
MCKO1
MCKO2
SCKO0
SCKO1
SCKO2
SCKO3
DP301
R377
47(J)
TAIFCLK_ENC
251 307
C365
100nF(K)
[VCC]
[AGND]
[VDD1]
[VDD2]
[VDD3]
[DGND1]
[DGND2]
[DGND3]
PLL1707DBQR
10K(J)
[RMX4A]
RM305
C362
10uF(M)
C363
100nF(K)
C375
1nF(K)
C364
100nF(K)
C374
1nF(K)
C373
1nF(K)
C372
1nF(K)
C366
100nF(K)
GND
56/62/72HM195
SEINE_DIGITAL (MPEG_AUDIO_PLL)
SH.NO.
308

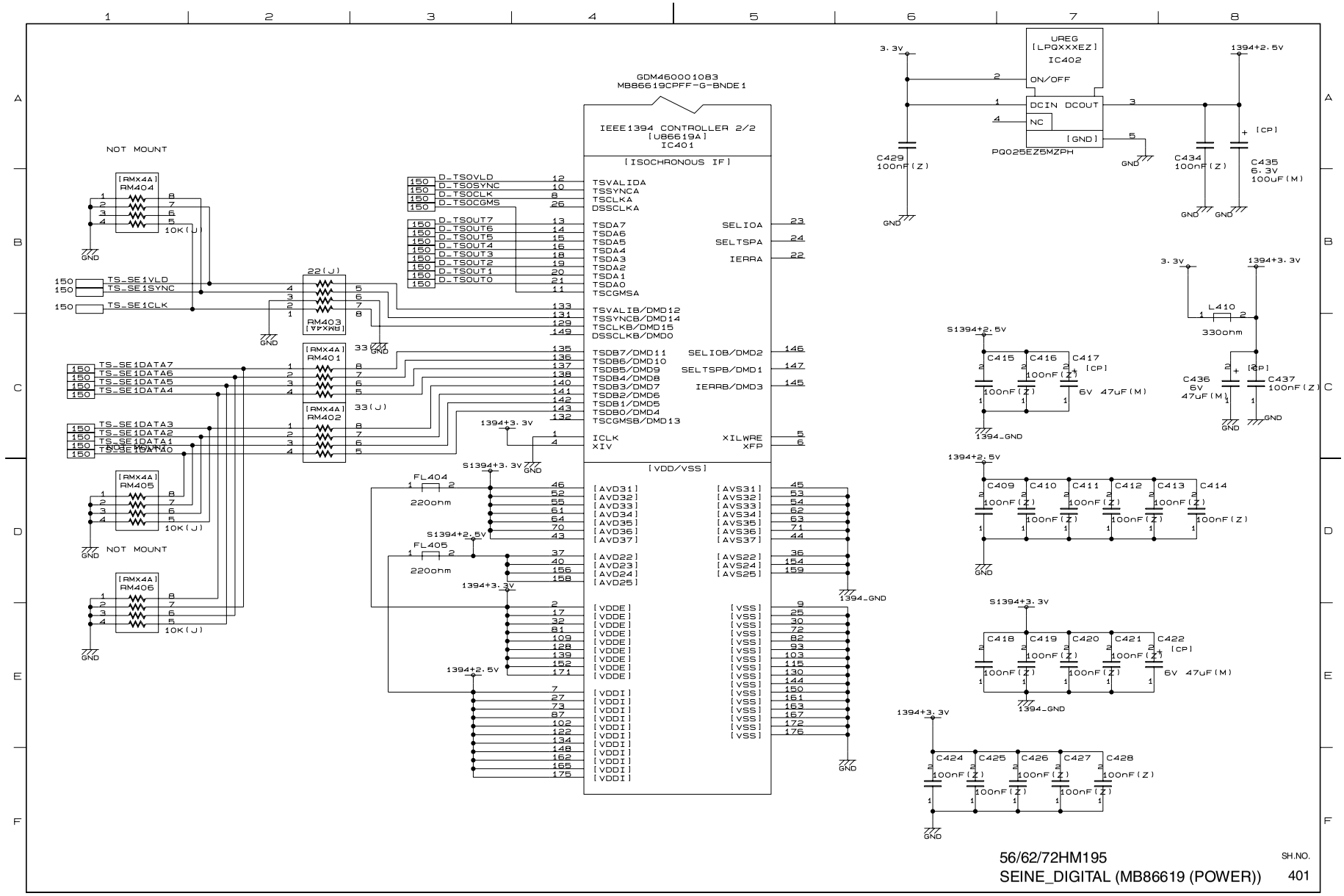

DAC
[L1754A]
IC312
FMT
MUTE
DEMP
BCK
LRCK
DATA
SCK
TEST
ZEROA
VOUTL
VCOM
VOUTR
[VCC]
[NC]
[AGND]
[DGND]
TBCK
TLRCK
A_DATAOUT-0.1
TAIFCLK
+5V-AUDIO
C339
10uF(M)
C340
100nF(Z)
C343
1nF(J)
GND_A
C338
10uF(M)10V
C342
10uF(M)
A_0.1CH
310
56/62/72HM195
SEINE_DIGITAL (AUDIO_DAC_0.1CH)
SH.NO.
309



56/62/72HM195
SEINE_DIGITAL (AUDIO_VTR_OUT)

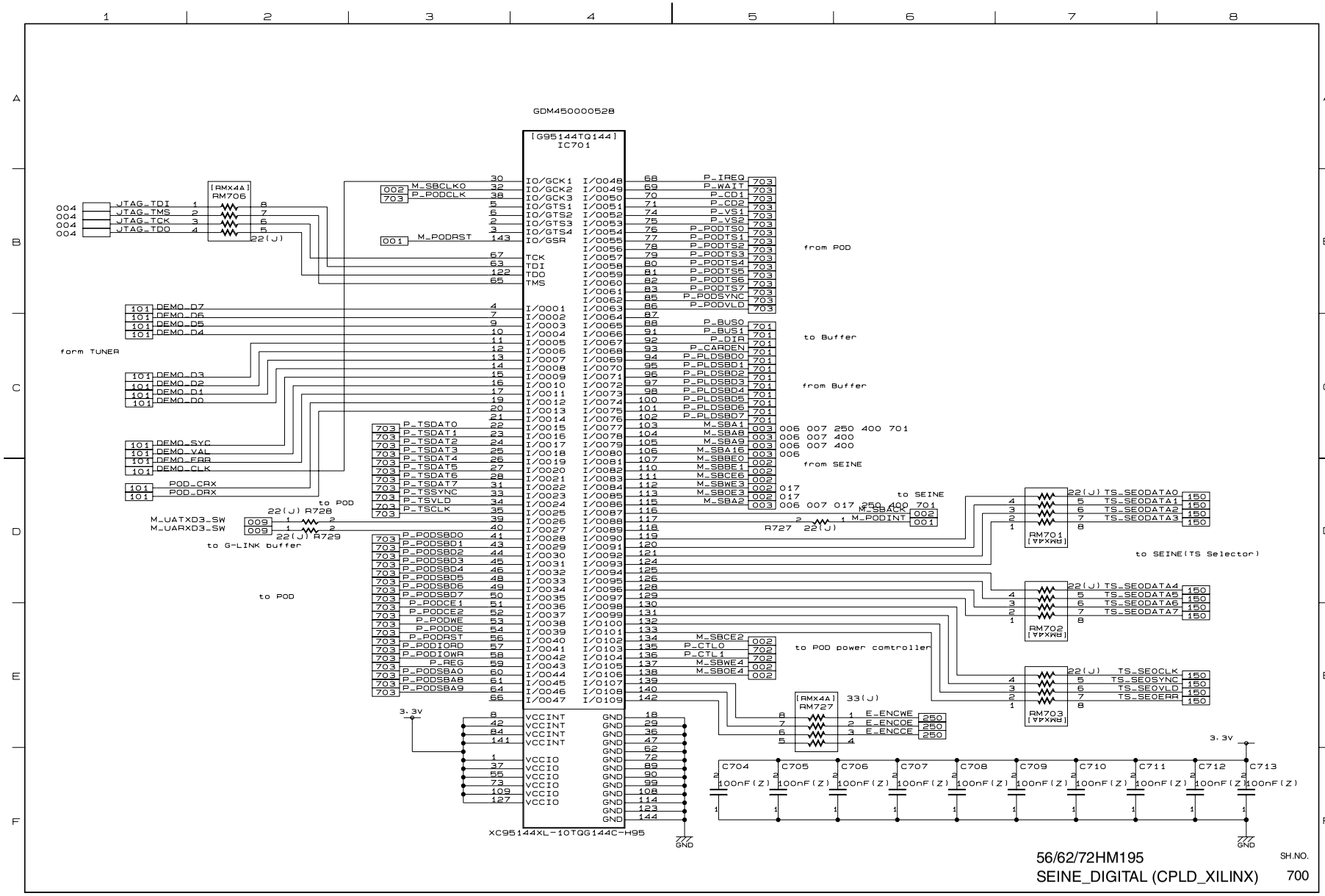
SH.NO.
310

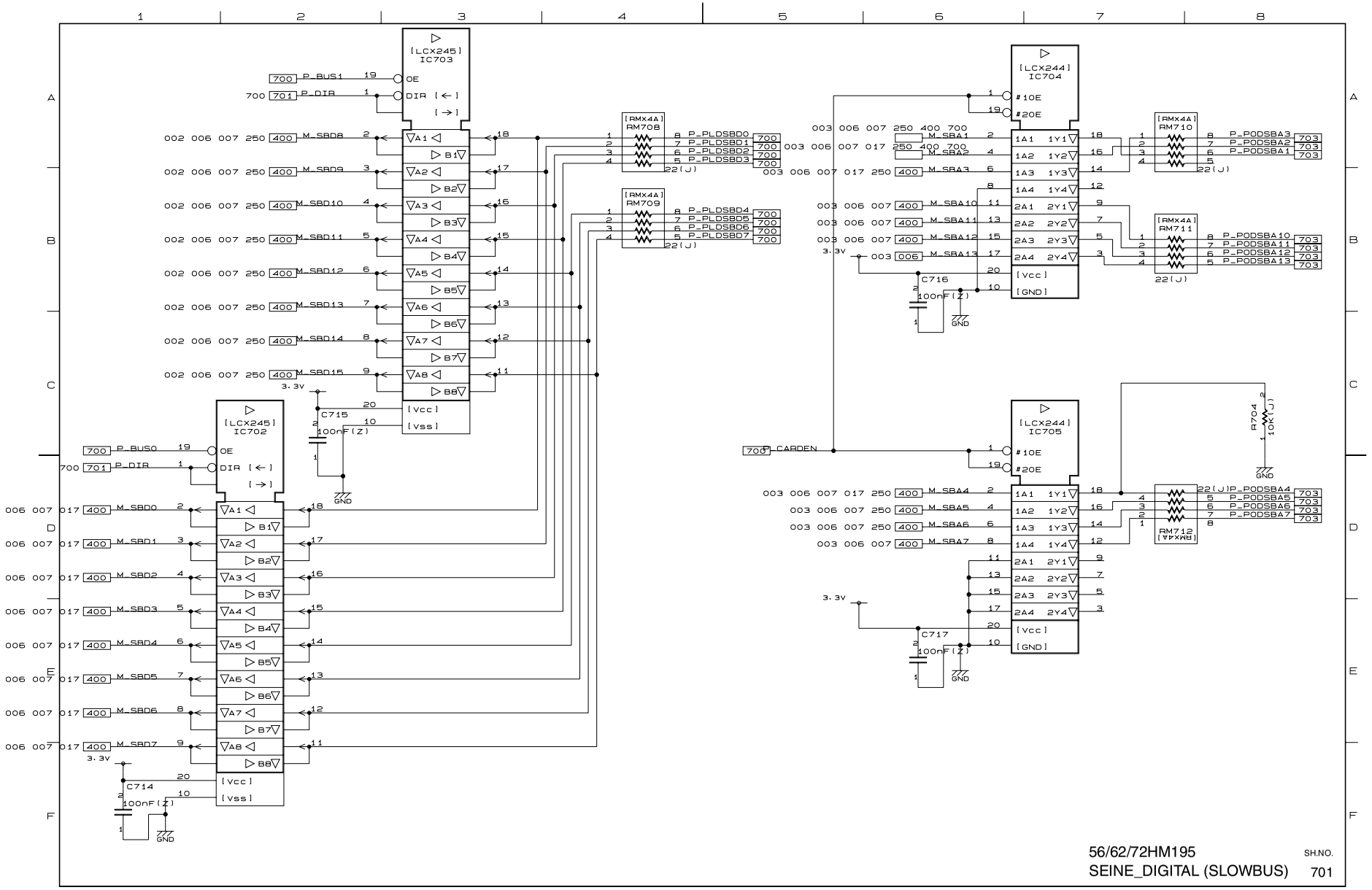

GDM460001083
MB86619CPFF-G-BNDE1
IEEE1394 CONTROLLER 1/2
[U86619A]
IC401
[MPU IF]
[IEEE1394 IF]
[AUDIO IF]
[TEST]
XRESET
MODE1
MODE0
MODED
A12
A11
A10
A9
A8
A7
A6
A5
A4
A3
A2
A1
XCS
XRD(R/XW)
XWR(XDS)
ALE
XDACK
XDMRD
XDMWR
D15
D14
D13
AD12
AD11
AD10
AD9
AD8
AD7
AD6
AD5
AD4
AD3
AD2
AD1
D0
DREQ
XINT
TPA0
XTPA0
TPB0
XTPB0
TPA1
XTPA1
TPB1
XTPB1
TPBIAS0
TPBIAS1
TPBIAS2
TPA2
XTPA2
TPB2
XTPB2
XO
XI
CPS
PMODE
FIL
RF
RO
LINKON
LRCK
BCLK
SDO
SD1
SD2
VSS
MCLK
XOA
XIA
FILA1
RFA
SAT
XSM
XTST
SMCK
MST
S200MODE
TEST2
TEST3
M_1394RST
S_1394INT
S_TPBIAS0
S_TPBIAS1
M_SBA12
M_SBA11
M_SBA10
M_SBA9
M_SBA8
M_SBA7
M_SBA6
M_SBA5
M_SBA4
M_SBA3
M_SBA2
M_SBA1
M_SBCE3
M_SBOE2
M_SBWE2
M_SBD15
M_SBD14
M_SBD13
M_SBD12
M_SBD11
M_SBD10
M_SBD9
M_SBD8
M_SBD7
M_SBD6
M_SBD5
M_SBD4
M_SBD3
M_SBD2
M_SBD1
M_SBD0
1394+3.3V
GND
1394_GND
R426
R427
R428
R405
R406
R407
R408
R409
R410
R411
R412
R413
R414
R419
R418
C401
C402
C403
C404
C405
C406
C408
270pF(J)
1uF(Z)
24pF(J)
3.3nF(K)
X401
24.576MHz
GDM2220001446
GDM130000347
[C4A2]
PJ401
PJ402
[FL09J]
L401
L402
EXC28CE201U
OPEN :S400
PULL-UP:S200
56/62/72HM195
SEINE_DIGITAL (MB86619)
SH.NO.
400

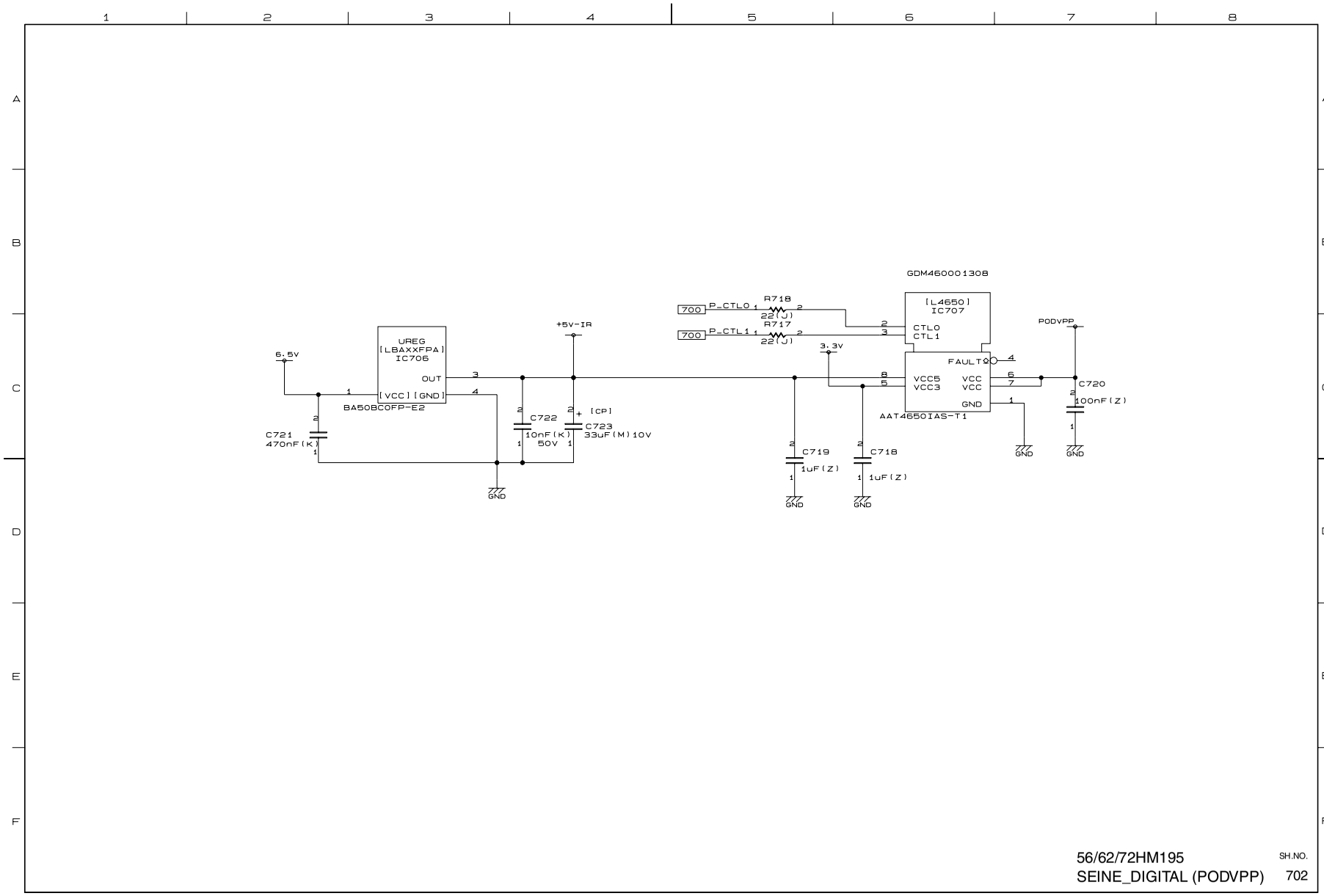


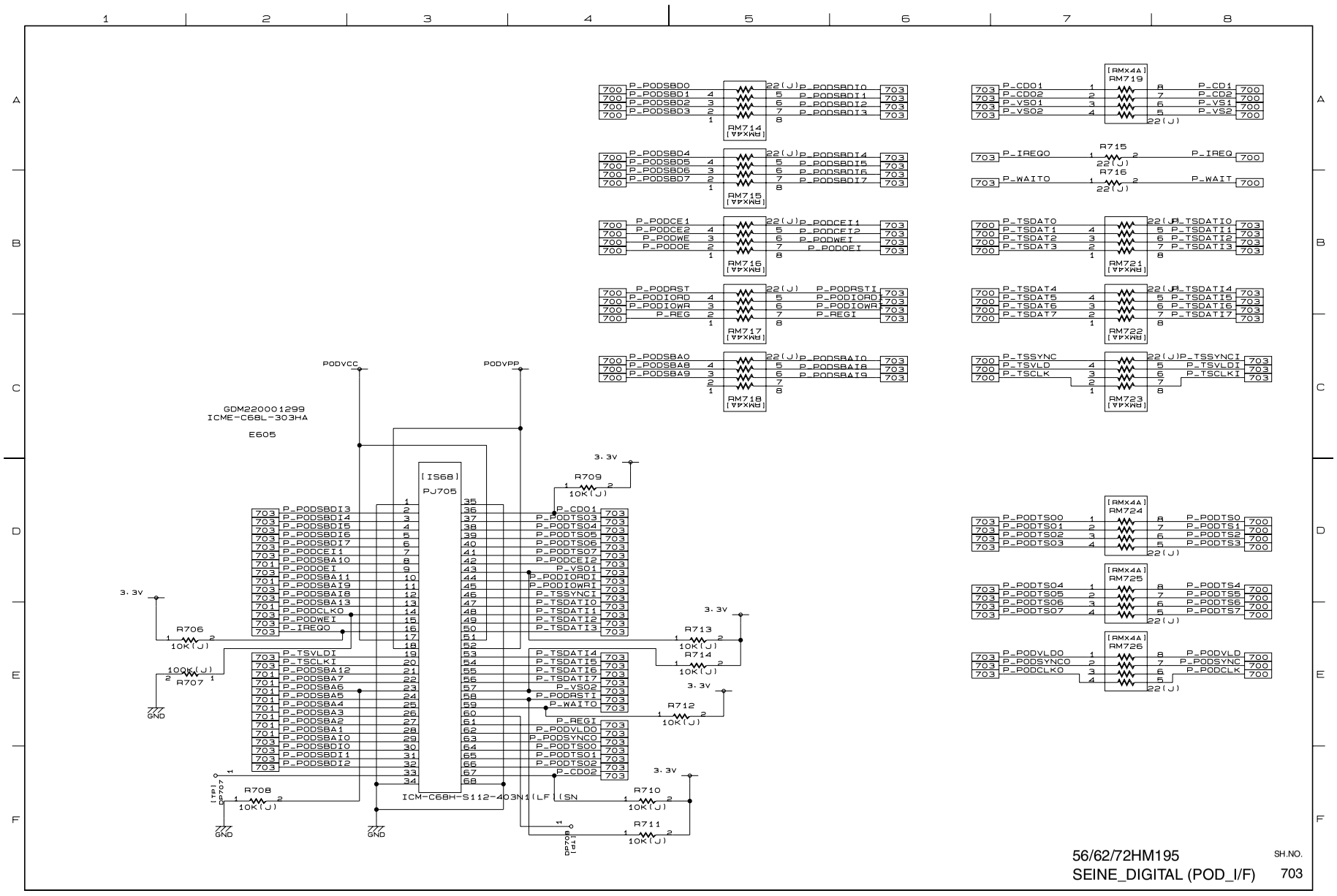
56/62/72HM195
SEINE_DIGITAL (MB86619 (POWER))

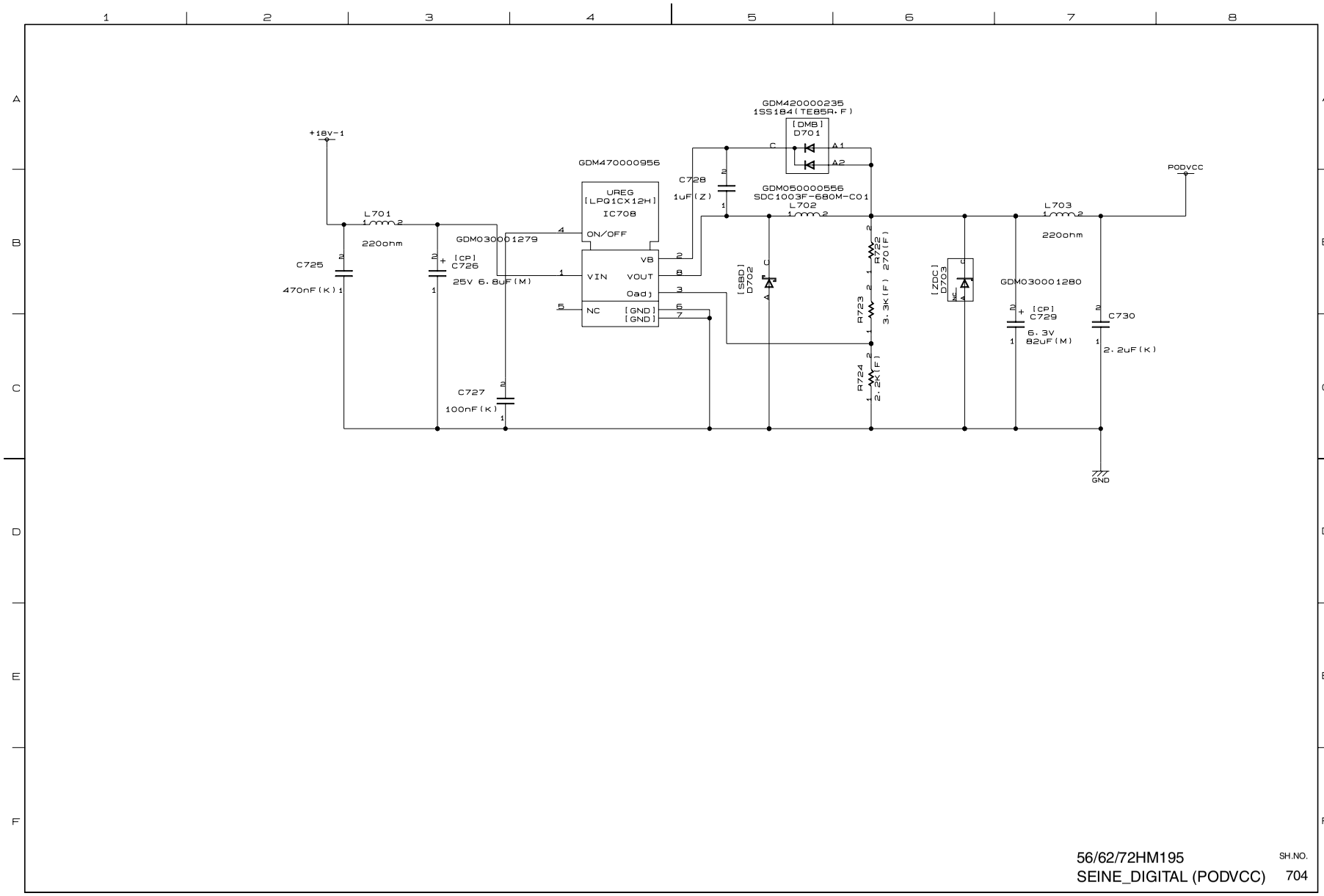
SH.NO. 401


GDM450000528
[G95144TQ144]
IC701
XC95144XL-10TQG144C-H95
from POD
to Buffer
from Buffer
from SEINE
to SEINE
to SEINE(TS Selector)
to POD power comtroller
form TUNER
to POD
to G-LINK buffer
56/62/72HM195
SEINE_DIGITAL (CPLD_XILINX)
SH.NO.
700


[LCX245] IC703
[LCX245] IC702
[LCX244] IC704
[LCX244] IC705
[RMX4A] RM708
[RMX4A] RM709
[RMX4A] RM710
[RMX4A] RM711
[RMX4A] RM712
P_BUS1
P_DIR
P_BUS0
M_SBD8
M_SBD9
M_SBD10
M_SBD11
M_SBD12
M_SBD13
M_SBD14
M_SBD15
M_SBD0
M_SBD1
M_SBD2
M_SBD3
M_SBD4
M_SBD5
M_SBD6
M_SBD7
M_SBA1
M_SBA2
M_SBA3
M_SBA10
M_SBA11
M_SBA12
M_SBA13
M_SBA4
M_SBA5
M_SBA6
M_SBA7
P_CARDEN
P_PLDSBD0
P_PLDSBD1
P_PLDSBD2
P_PLDSBD3
P_PLDSBD4
P_PLDSBD5
P_PLDSBD6
P_PLDSBD7
P_PODSBA1
P_PODSBA2
P_PODSBA3
P_PODSBA10
P_PODSBA11
P_PODSBA12
P_PODSBA13
P_PODSBA4
P_PODSBA5
P_PODSBA6
P_PODSBA7
C714
C715
C716
C717
R704
100nF(Z)
10K(J)
22(J)
3.3V
GND
56/62/72HM195
SEINE_DIGITAL (SLOWBUS)
SH.NO.
701

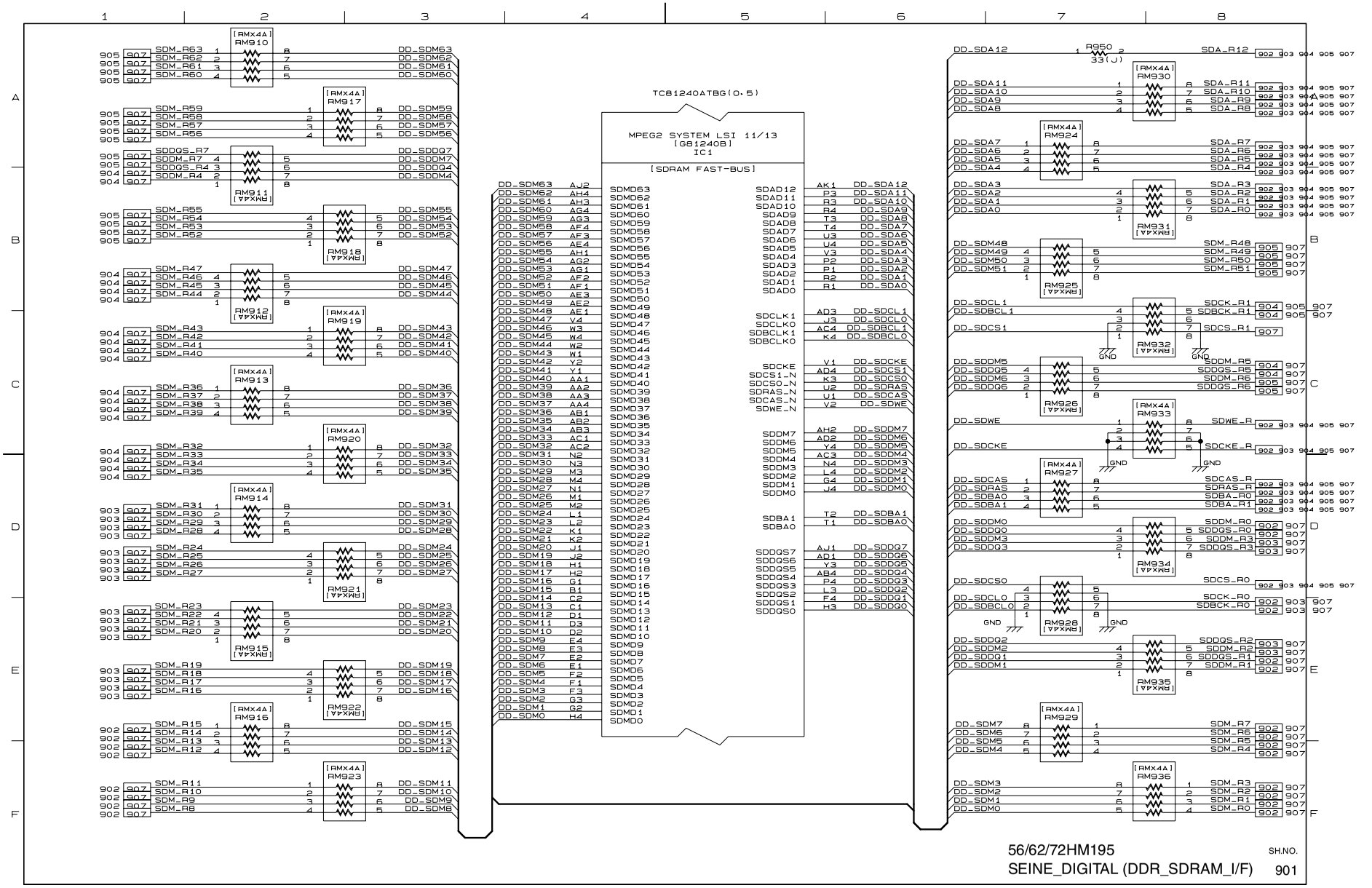

GDM460001308
UREG
[LBAXXFPA]
IC706
BA50BC0FP-E2
6.5V
OUT
[VCC] [GND]
+5V-IR
C721
470nF(K)
C722
10nF(K)
50V
C723
33uF(M)10V
[CP]
GND
P_CTL0
P_CTL1
700
R718
22(J)
R717
22(J)
[L4650]
IC707
CTL0
CTL1
3.3V
FAULT
VCC5
VCC3
VCC
VCC
GND
AAT4650IAS-T1
PODVPP
C720
100nF(Z)
C719
1uF(Z)
C718
1uF(Z)
56/62/72HM195
SEINE_DIGITAL (PODVPP)
SH.NO.
702

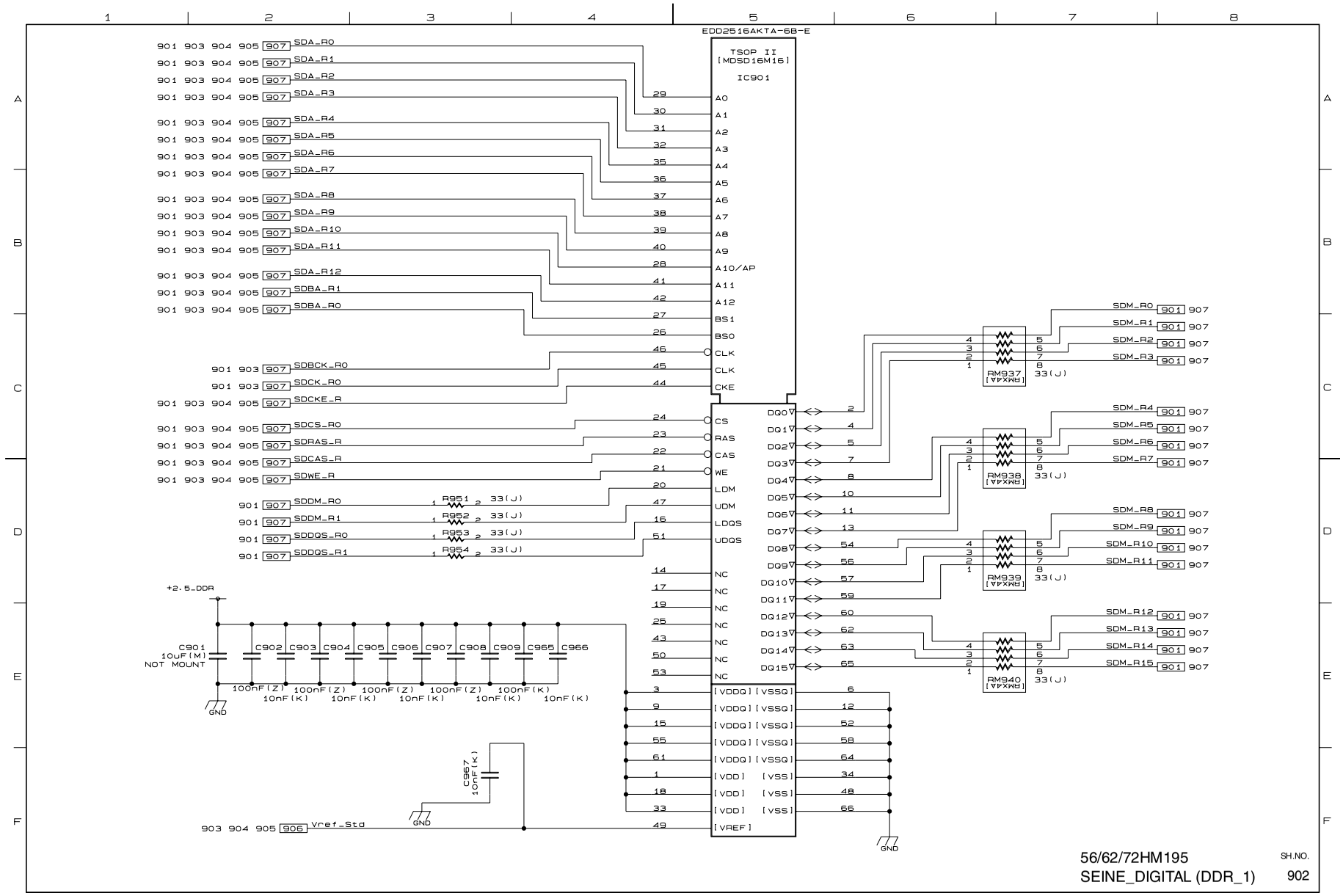

GDM2200O1299
ICME-C68L-303HA
E605
PODVCC
PODVPP
[IS68]
PJ705
ICM-C68H-S112-403N1(LF)(SN
3.3V
GND
R706
R707
R708
R709
R710
R711
R712
R713
R714
10K(J)
100K(J)
RM714
RM715
RM716
RM717
RM718
RM719
RM721
RM722
RM723
RM724
RM725
RM726
R715
R716
22(J)
56/62/72HM195
SEINE_DIGITAL (POD_I/F)
SH.NO.
703



56/62/72HM195
SEINE_DIGITAL (PODVCC)

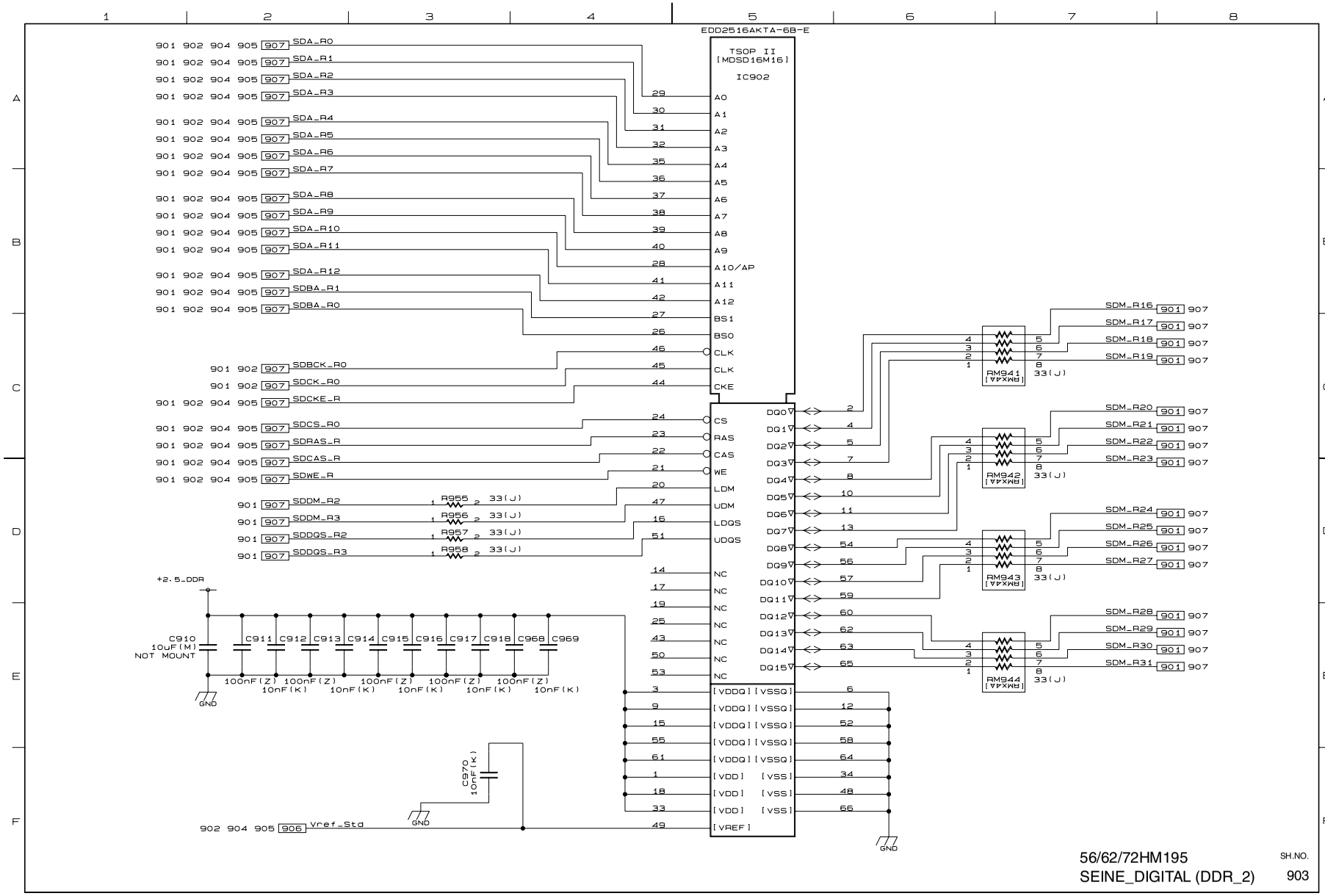
SH.NO.
704

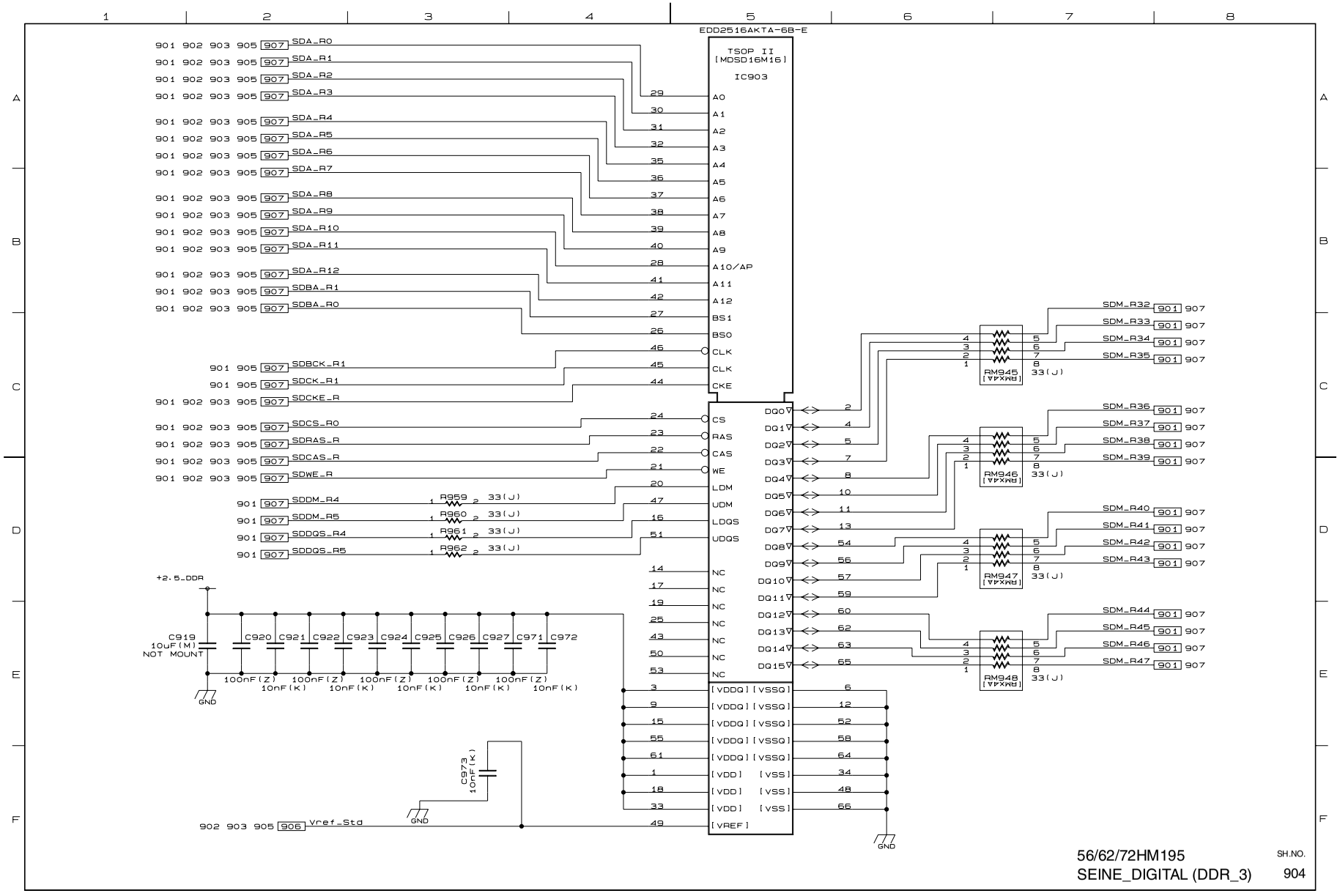

TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 11/13
[G81240B]
IC1
[SDRAM FAST-BUS]
56/62/72HM195
SEINE_DIGITAL (DDR_SDRAM_I/F)
SH.NO.
901

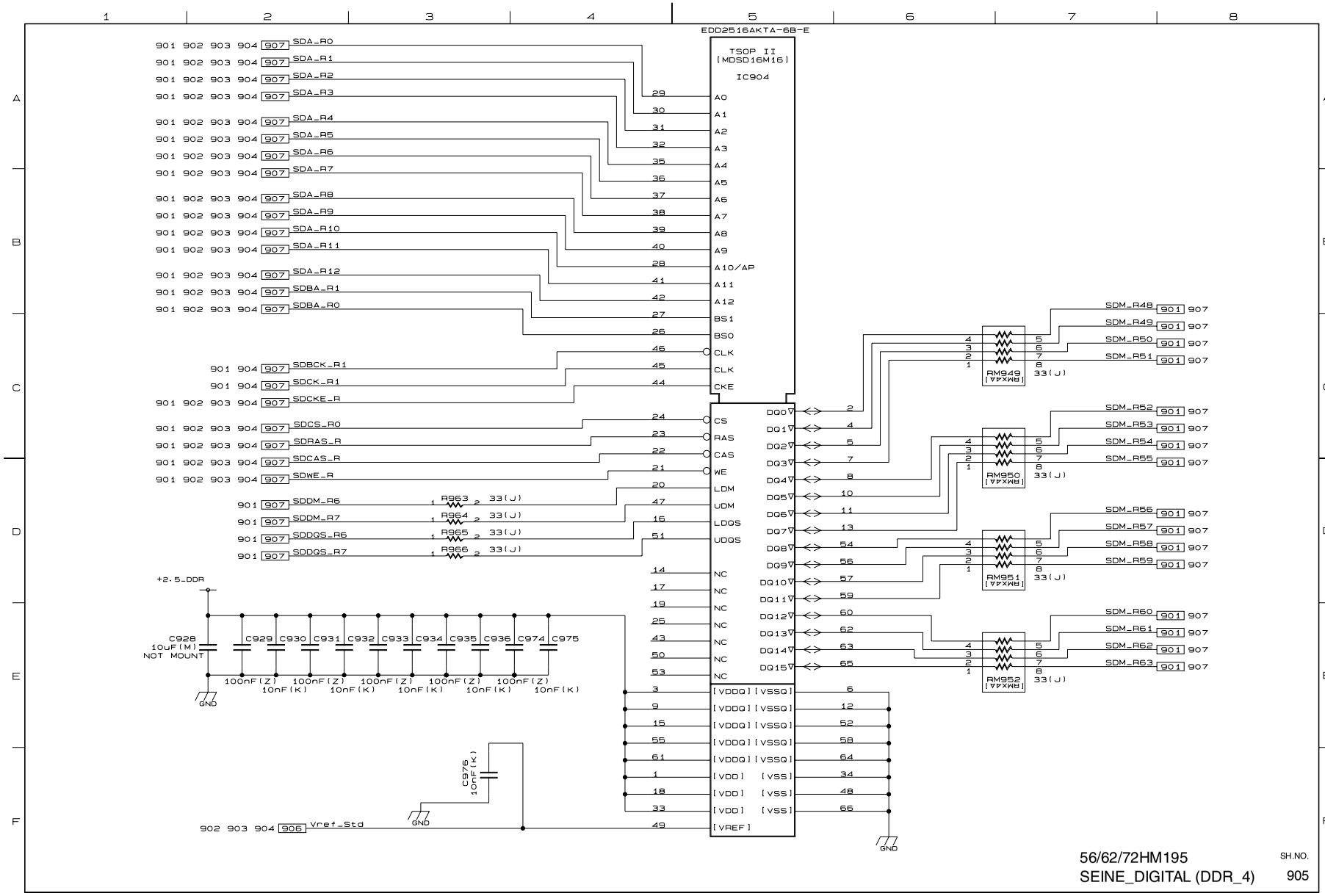


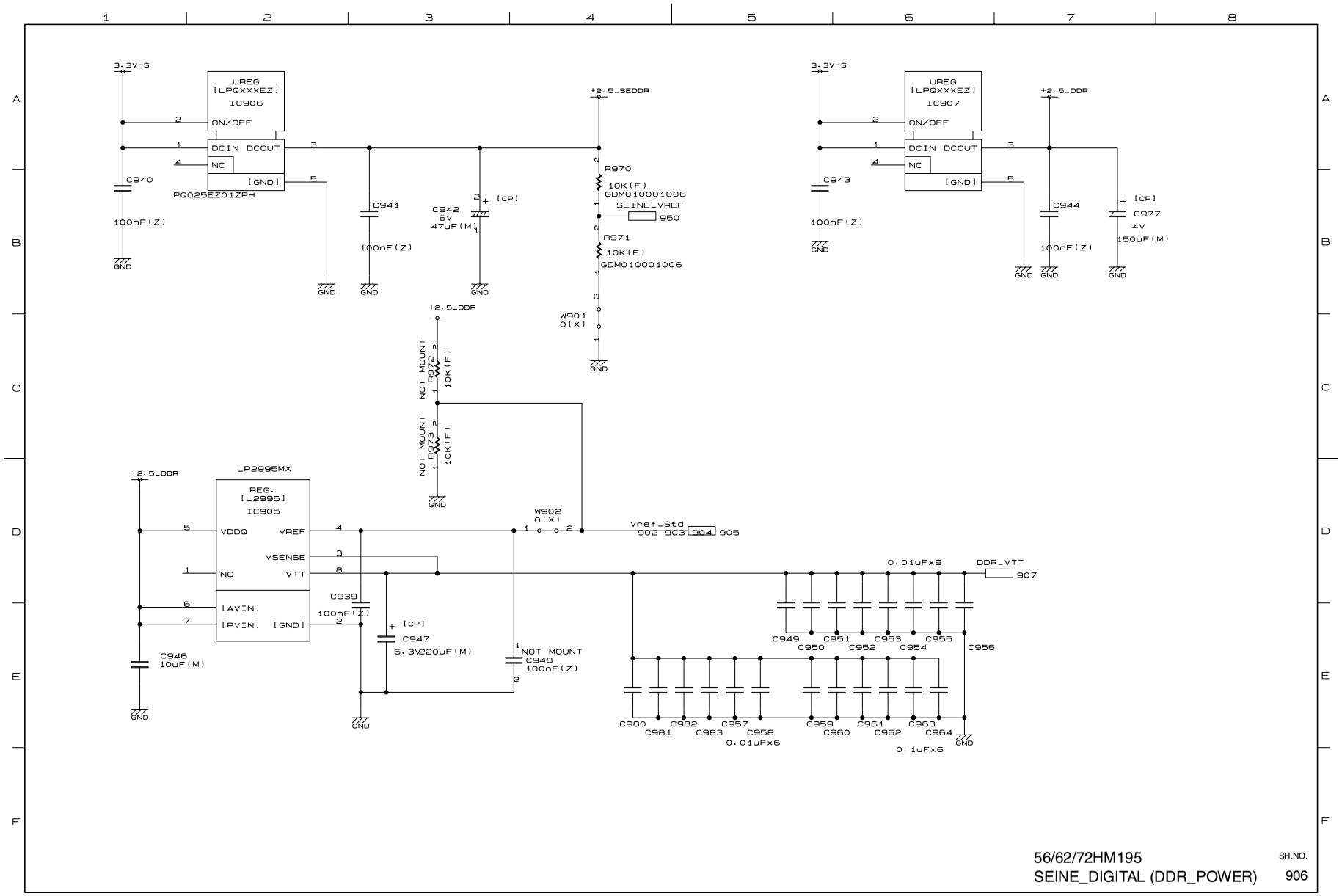
56/62/72HM195
SEINE_DIGITAL (DDR_1)

SH.NO. 902


EDD2516AKTA-6B-E
TSOP II
[MDSD16M16]
IC902
SDA_R0
SDA_R1
SDA_R2
SDA_R3
SDA_R4
SDA_R5
SDA_R6
SDA_R7
SDA_R8
SDA_R9
SDA_R10
SDA_R11
SDA_R12
SDBA_R1
SDBA_R0
SDBCK_R0
SDCK_R0
SDCKE_R
SDCS_R0
SDRAS_R
SDCAS_R
SDWE_R
SDDM_R2
SDDM_R3
SDDQS_R2
SDDQS_R3
R955 33(J)
R956 33(J)
R957 33(J)
R958 33(J)
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10/AP
A11
A12
BS1
BS0
CLK
CLK
CKE
CS
RAS
CAS
WE
LDM
UDM
LDQS
UDQS
NC
[VDDQ] [VSSQ]
[VDD] [VSS]
[VREF]
DQ0
DQ1
DQ2
DQ3
DQ4
DQ5
DQ6
DQ7
DQ8
DQ9
DQ10
DQ11
DQ12
DQ13
DQ14
DQ15
RM941 33(J)
RM942 33(J)
RM943 33(J)
RM944 33(J)
SDM_R16
SDM_R17
SDM_R18
SDM_R19
SDM_R20
SDM_R21
SDM_R22
SDM_R23
SDM_R24
SDM_R25
SDM_R26
SDM_R27
SDM_R28
SDM_R29
SDM_R30
SDM_R31
+2.5_DDR
C910 10uF(M) NOT MOUNT
C911 C912 C913 C914 C915 C916 C917 C918 C968 C969
100nF(Z) 10nF(K)
C970 10nF(K)
Vref_Std
GND
56/62/72HM195
SEINE_DIGITAL (DDR_2)
SH.NO.
903

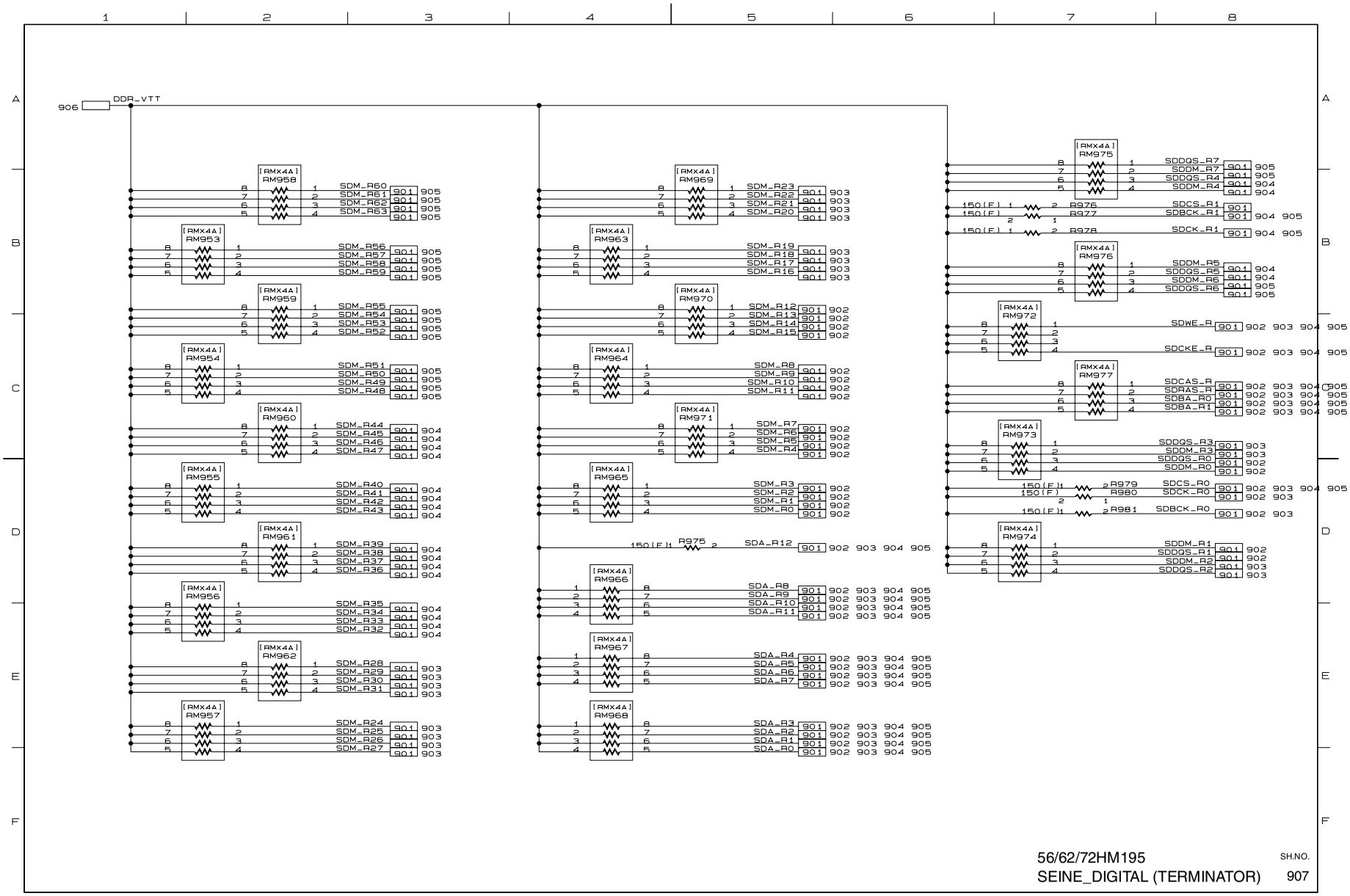

EDD2516AKTA-6B-E
TSOP II
[MDSD16M16]
IC903
SDA_R0
SDA_R1
SDA_R2
SDA_R3
SDA_R4
SDA_R5
SDA_R6
SDA_R7
SDA_R8
SDA_R9
SDA_R10
SDA_R11
SDA_R12
SDBA_R1
SDBA_R0
SDBCK_R1
SDCK_R1
SDCKE_R
SDCS_R0
SDRAS_R
SDCAS_R
SDWE_R
SDDM_R4
SDDM_R5
SDDQS_R4
SDDQS_R5
R959 33(J)
R960 33(J)
R961 33(J)
R962 33(J)
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10/AP
A11
A12
BS1
BS0
CLK
CLK
CKE
CS
RAS
CAS
WE
LDM
UDM
LDQS
UDQS
NC
[VDDQ] [VSSQ]
[VDD] [VSS]
[VREF]
DQ0
DQ1
DQ2
DQ3
DQ4
DQ5
DQ6
DQ7
DQ8
DQ9
DQ10
DQ11
DQ12
DQ13
DQ14
DQ15
SDM_R32
SDM_R33
SDM_R34
SDM_R35
SDM_R36
SDM_R37
SDM_R38
SDM_R39
SDM_R40
SDM_R41
SDM_R42
SDM_R43
SDM_R44
SDM_R45
SDM_R46
SDM_R47
RM945 33(J)
RM946 33(J)
RM947 33(J)
RM948 33(J)
+2.5_DDR
C919 10uF(M) NOT MOUNT
C920 C921 C922 C923 C924 C925 C926 C927 C971 C972
100nF(Z) 10nF(K)
C973 10nF(K)
Vref_Std
GND
56/62/72HM195
SEINE_DIGITAL (DDR_3)
SH.NO.
904

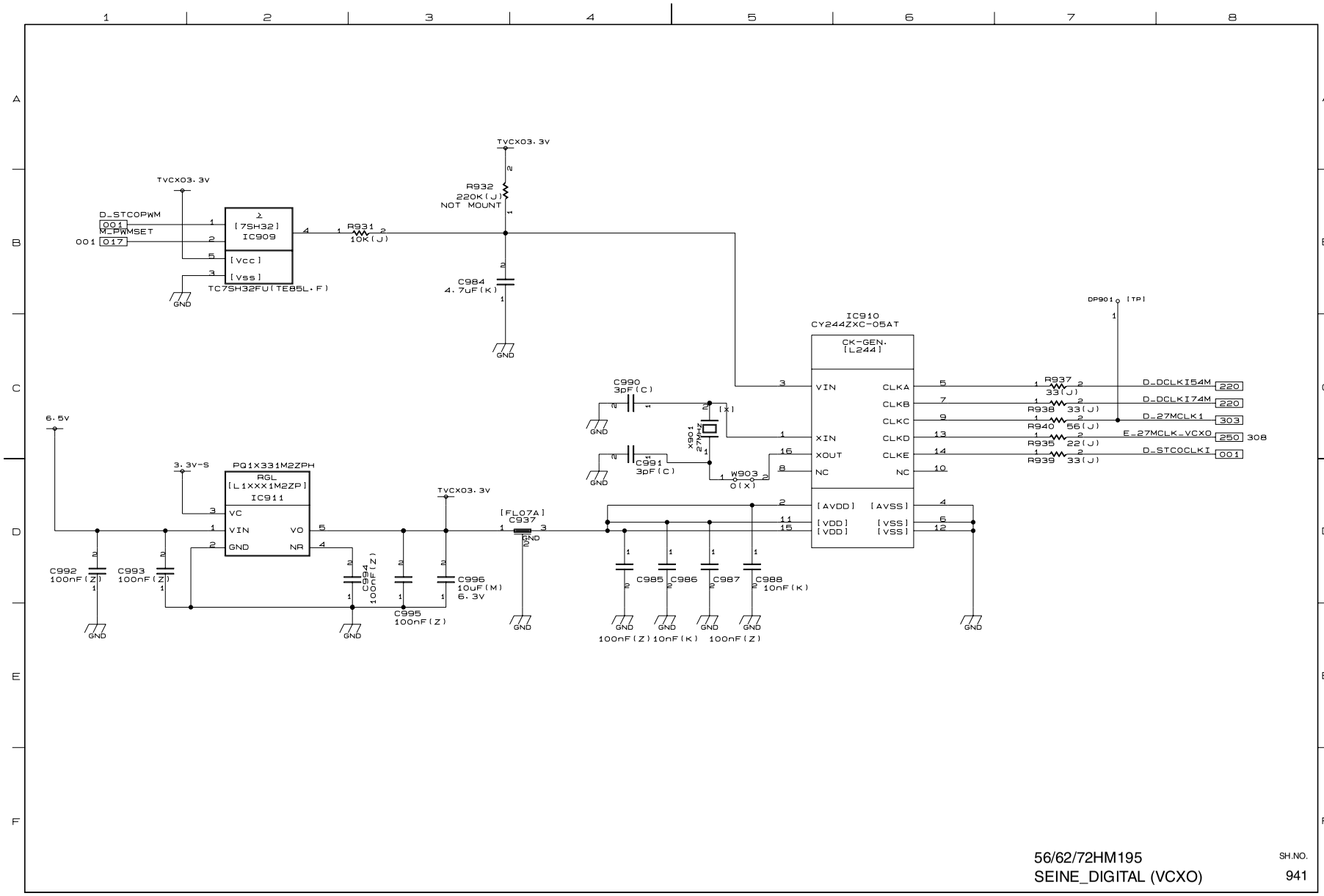

EDD2516AKTA-6B-E
TSOP II
[MDSD16M16]
IC904
SDA_R0
SDA_R1
SDA_R2
SDA_R3
SDA_R4
SDA_R5
SDA_R6
SDA_R7
SDA_R8
SDA_R9
SDA_R10
SDA_R11
SDA_R12
SDBA_R1
SDBA_R0
SDBCK_R1
SDCK_R1
SDCKE_R
SDCS_R0
SDRAS_R
SDCAS_R
SDWE_R
SDDM_R6
SDDM_R7
SDDQS_R6
SDDQS_R7
R963 33(J)
R964 33(J)
R965 33(J)
R966 33(J)
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10/AP
A11
A12
BS1
BS0
CLK
CLK
CKE
CS
RAS
CAS
WE
LDM
UDM
LDQS
UDQS
NC
[VDDQ] [VSSQ]
[VDD] [VSS]
[VREF]
DQ0
DQ1
DQ2
DQ3
DQ4
DQ5
DQ6
DQ7
DQ8
DQ9
DQ10
DQ11
DQ12
DQ13
DQ14
DQ15
RM949 33(J)
RM950 33(J)
RM951 33(J)
RM952 33(J)
SDM_R48
SDM_R49
SDM_R50
SDM_R51
SDM_R52
SDM_R53
SDM_R54
SDM_R55
SDM_R56
SDM_R57
SDM_R58
SDM_R59
SDM_R60
SDM_R61
SDM_R62
SDM_R63
+2.5_DDR
C928 10uF(M) NOT MOUNT
C929 C930 C931 C932 C933 C934 C935 C936 C974 C975
100nF(Z) 10nF(K)
C976 10nF(K)
Vref_Std
GND
56/62/72HM195
SEINE_DIGITAL (DDR_4)
SH.NO.
905



56/62/72HM195
SEINE_DIGITAL (DDR_POWER)

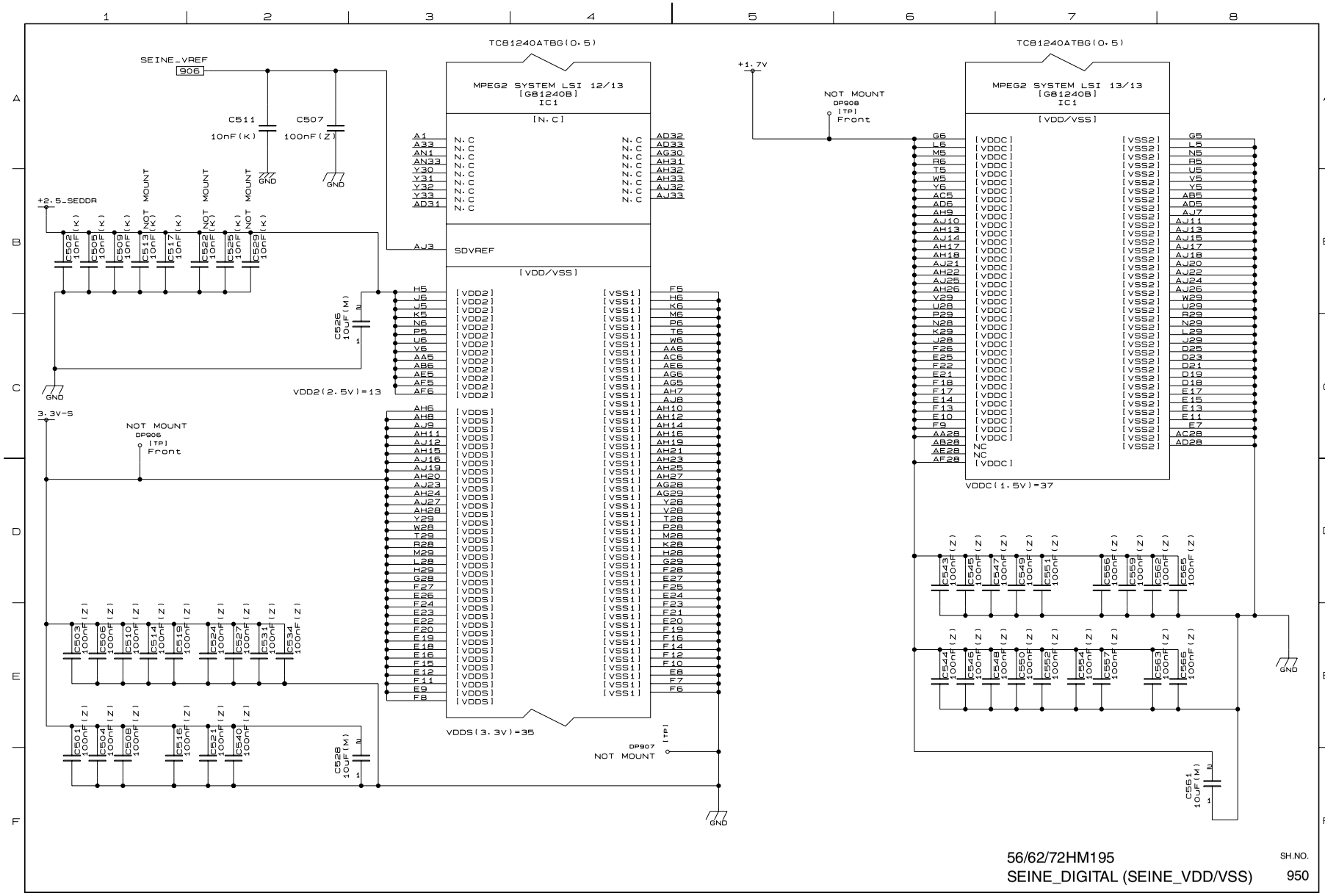
SH.NO. 906

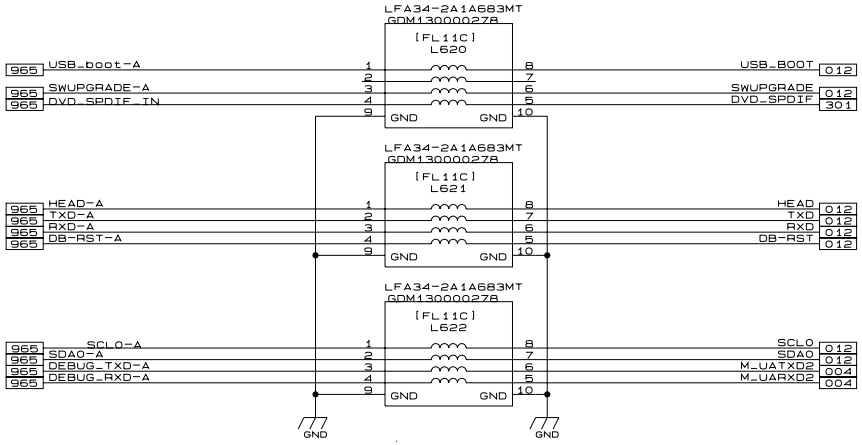

906
DDR_VTT
RM958
SDM_R60
SDM_R61
SDM_R62
SDM_R63
RM959
SDM_R55
SDM_R54
SDM_R53
SDM_R52
RM960
SDM_R44
SDM_R45
SDM_R46
SDM_R47
RM961
SDM_R39
SDM_R38
SDM_R37
SDM_R36
RM962
SDM_R28
SDM_R29
SDM_R30
SDM_R31
RM963
SDM_R19
SDM_R18
SDM_R17
SDM_R16
RM964
SDM_R8
SDM_R9
SDM_R10
SDM_R11
RM965
SDM_R3
SDM_R2
SDM_R1
SDM_R0
RM966
SDA_R8
SDA_R9
SDA_R10
SDA_R11
RM967
SDA_R4
SDA_R5
SDA_R6
SDA_R7
RM968
SDA_R3
SDA_R2
SDA_R1
SDA_R0
RM969
SDM_R23
SDM_R22
SDM_R21
SDM_R20
RM970
SDM_R12
SDM_R13
SDM_R14
SDM_R15
RM971
SDM_R7
SDM_R6
SDM_R5
SDM_R4
R975
SDA_R12
RM972
SDWE_R
RM973
SDDQS_R3
SDDM_R3
SDDQS_R0
SDDM_R0
RM974
SDDM_R1
SDDQS_R1
SDDM_R2
SDDQS_R2
RM975
SDDQS_R7
SDDM_R7
SDDQS_R4
SDDM_R4
R976
SDCS_R1
R977
SDBCK_R1
R978
SDCK_R1
RM976
SDDM_R5
SDDQS_R5
SDDM_R6
SDDQS_R6
RM977
SDCAS_R
SDRAS_R
SDBA_R0
SDBA_R1
R979
SDCS_R0
R980
SDCK_R0
R981
SDBCK_R0
56/62/72HM195
SEINE_DIGITAL (TERMINATOR)
SH.NO.
907



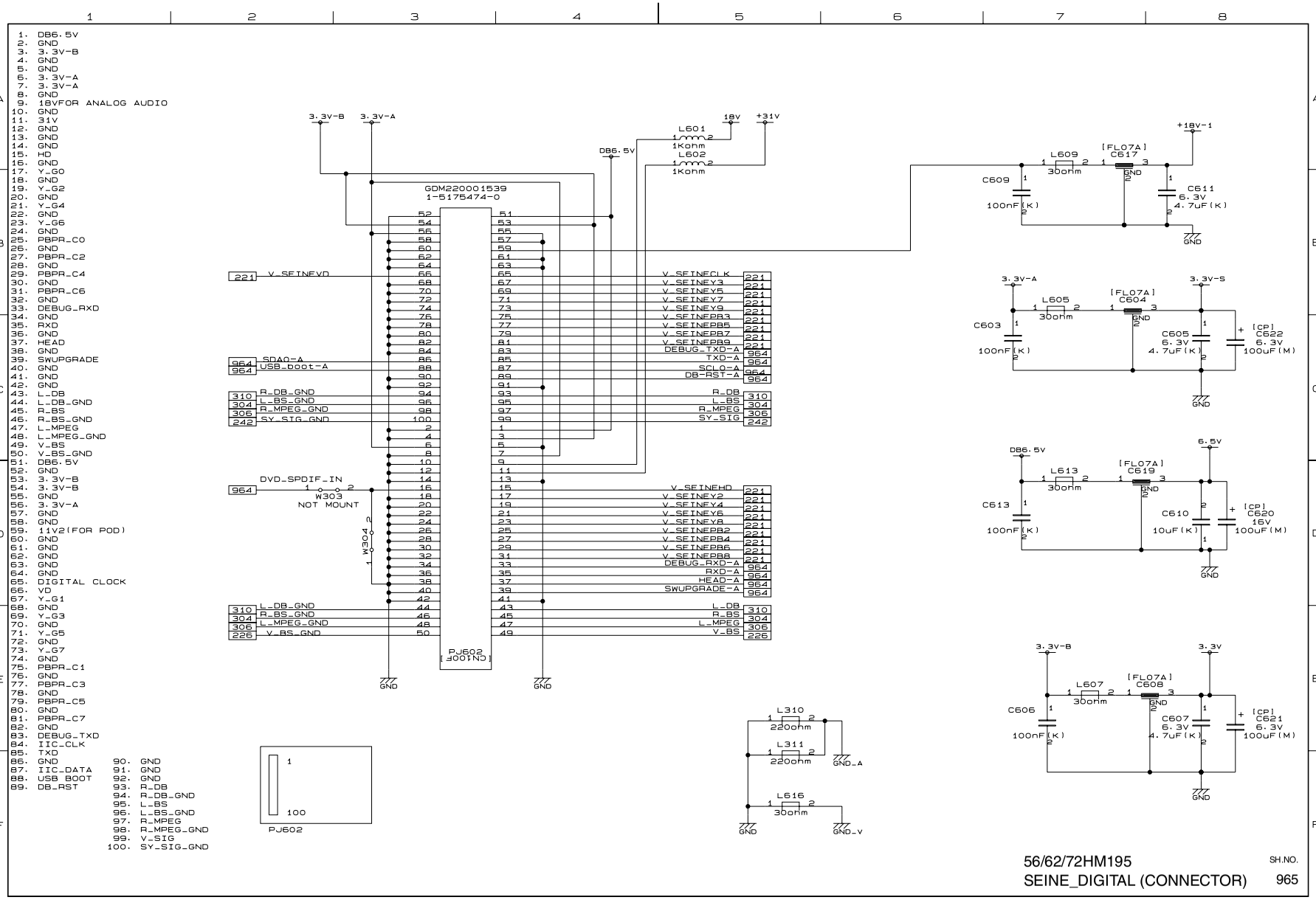
56/62/72HM195
SEINE_DIGITAL (VCXO)

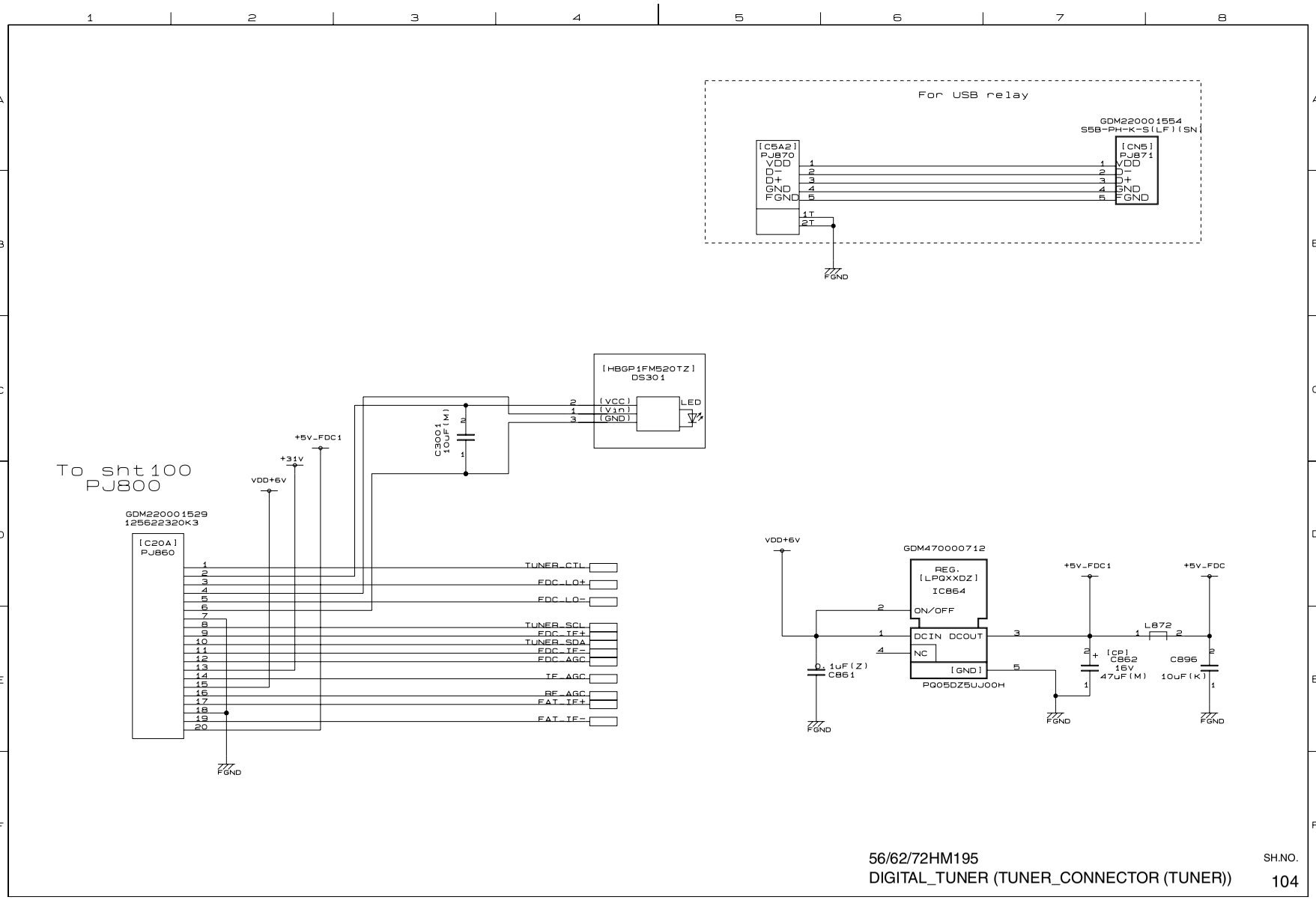
SH.NO.
941


TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 12/13
[GB1240B]
IC1
[N.C]
SDVREF
[VDD/VSS]
VDD2(2.5V)=13
VDDS(3.3V)=35
TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 13/13
[GB1240B]
IC1
[VDD/VSS]
VDDC(1.5V)=37
SEINE_VREF
906
+2.5_SEDDR
3.3V-S
+1.7V
NOT MOUNT
DP906
[TP]
Front
NOT MOUNT
DP908
[TP]
Front
DP907
[TP]
NOT MOUNT
C511
10nF(K)
C507
100nF(Z)
C526
10uF(M)
C528
10uF(M)
C561
10uF(M)
GND
56/62/72HM195
SEINE_DIGITAL (SEINE_VDD/VSS)
SH.NO.
950



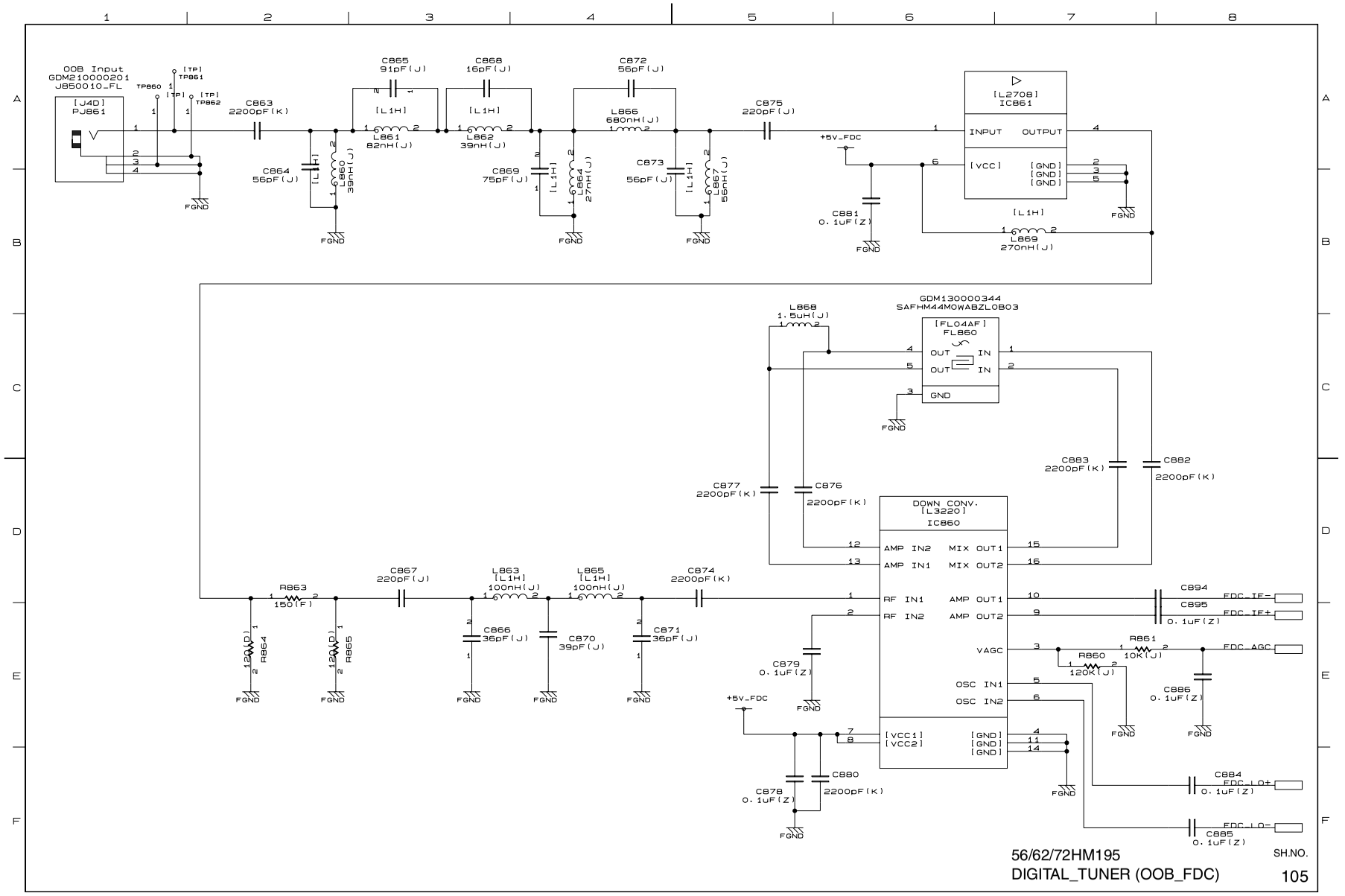
56/62/72HM195 SH.NO.
SEINE_DIGITAL (Signal_filter) 964

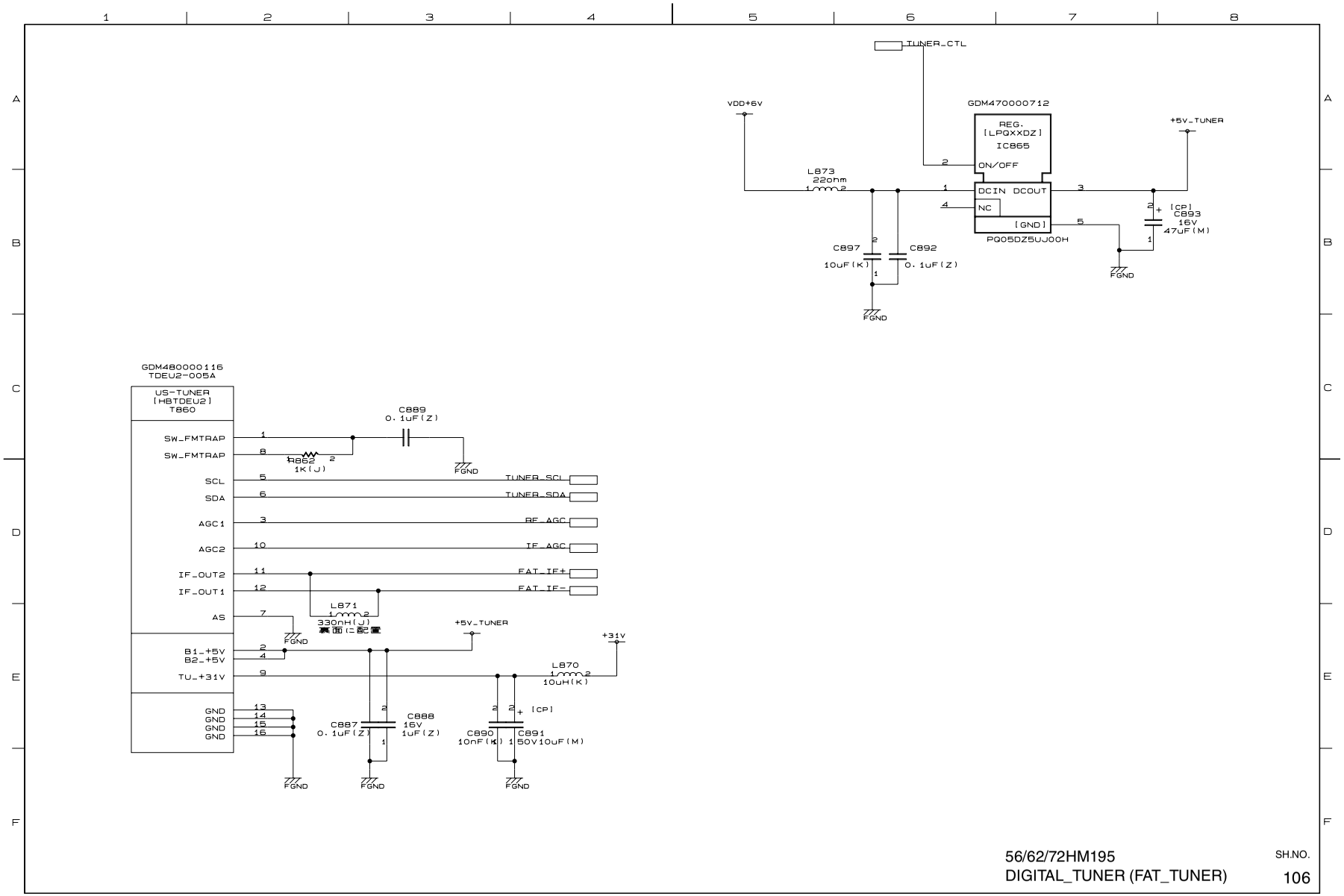

1. DB6.5V
2. GND
3. 3.3V-B
4. GND
5. GND
6. 3.3V-A
7. 3.3V-A
8. GND
9. 18VFOR ANALOG AUDIO
10. GND
11. 31V
12. GND
13. GND
14. GND
15. HD
16. GND
17. Y_G0
18. GND
19. Y_G2
20. GND
21. Y_G4
22. GND
23. Y_G6
24. GND
25. PBPR_C0
26. GND
27. PBPR_C2
28. GND
29. PBPR_C4
30. GND
31. PBPR_C6
32. GND
33. DEBUG_RXD
34. GND
35. RXD
36. GND
37. HEAD
38. GND
39. SWUPGRADE
40. GND
41. GND
42. GND
43. L_DB
44. L_DB_GND
45. R_BS
46. R_BS_GND
47. L_MPEG
48. L_MPEG_GND
49. V_BS
50. V_BS_GND
51. DB6.5V
52. GND
53. 3.3V-B
54. 3.3V-B
55. GND
56. 3.3V-A
57. GND
58. GND
59. 11V2(FOR POD)
60. GND
61. GND
62. GND
63. GND
64. GND
65. DIGITAL CLOCK
66. VD
67. Y_G1
68. GND
69. Y_G3
70. GND
71. Y_G5
72. GND
73. Y_G7
74. GND
75. PBPR_C1
76. GND
77. PBPR_C3
78. GND
79. PBPR_C5
80. GND
81. PBPR_C7
82. GND
83. DEBUG_TXD
84. IIC_CLK
85. TXD
86. GND
87. IIC_DATA
88. USB BOOT
89. DB_RST
90. GND
91. GND
92. GND
93. R_DB
94. R_DB_GND
95. L_BS
96. L_BS_GND
97. R_MPEG
98. R_MPEG_GND
99. V_SIG
100. SY_SIG_GND
3.3V-B
3.3V-A
18V
+31V
DB6.5V
L601
1Kohm
L602
1Kohm
GDM220001539
1-5175474-0
PJ602
CN100F
V_SEINEVD
SDA0-A
USB_boot-A
R_DB_GND
L_BS_GND
R_MPEG_GND
SY_SIG_GND
DVD_SPDIF_IN
W303
NOT MOUNT
W304
L_DB_GND
R_BS_GND
L_MPEG_GND
V_BS_GND
V_SEINECLK
V_SEINEY3
V_SEINEY5
V_SEINEY7
V_SEINEY9
V_SEINEPB3
V_SEINEPB5
V_SEINEPB7
V_SEINEPB9
DEBUG_TXD-A
TXD-A
SCL0-A
DB-RST-A
R_DB
L_BS
R_MPEG
SY_SIG
V_SEINEHD
V_SEINEY2
V_SEINEY4
V_SEINEY6
V_SEINEY8
V_SEINEPB2
V_SEINEPB4
V_SEINEPB6
V_SEINEPB8
DEBUG_RXD-A
RXD-A
HEAD-A
SWUPGRADE-A
L_DB
R_BS
L_MPEG
V_BS
GND
PJ602
1
100
L310
220ohm
L311
220ohm
GND_A
L616
30ohm
GND_V
+18V-1
L609
30ohm
[FL07A]
C617
C609
100nF(K)
C611
6.3V
4.7uF(K)
3.3V-A
3.3V-S
L605
30ohm
[FL07A]
C604
C603
100nF(K)
C605
6.3V
4.7uF(K)
[CP]
C622
6.3V
100uF(M)
DB6.5V
6.5V
L613
30ohm
[FL07A]
C619
C613
100nF(K)
C610
10uF(K)
[CP]
C620
16V
100uF(M)
3.3V-B
3.3V
L607
30ohm
[FL07A]
C608
C606
100nF(K)
C607
6.3V
4.7uF(K)
[CP]
C621
6.3V
100uF(M)
56/62/72HM195
SEINE_DIGITAL (CONNECTOR)
SH.NO.
965



56/62/72HM195
DIGITAL_TUNER (TUNER_CONNECTOR (TUNER))

SH.NO.
104


OOB Input
GDM2100002O1
JB50010_FL
[J4D]
PJ861
[TP]
TP860
[TP]
TP861
[TP]
TP862
C863
2200pF(K)
C865
91pF(J)
[L1H]
L861
82nH(J)
C868
16pF(J)
[L1H]
L862
39nH(J)
C872
56pF(J)
L866
680nH(J)
C875
220pF(J)
+5V_FDC
[L2708]
IC861
INPUT
OUTPUT
[VCC]
[GND]
[GND]
[GND]
C881
0.1uF(Z)
[L1H]
L869
270nH(J)
C864
56pF(J)
[L1H]
L860
39nH(J)
C869
75pF(J)
[L1H]
L864
27nH(J)
C873
56pF(J)
[L1H]
L867
56nH(J)
FGND
GDM130000344
SAFHM44MOWABZL0B03
[FL04AF]
FL860
OUT
IN
OUT
IN
GND
L868
1.5uH(J)
C883
2200pF(K)
C882
2200pF(K)
C877
2200pF(K)
C876
2200pF(K)
DOWN CONV.
[L3220]
IC860
AMP IN2
AMP IN1
MIX OUT1
MIX OUT2
RF IN1
RF IN2
AMP OUT1
AMP OUT2
VAGC
OSC IN1
OSC IN2
[VCC1]
[VCC2]
[GND]
[GND]
[GND]
R863
150(F)
C867
220pF(J)
L863
[L1H]
100nH(J)
L865
[L1H]
100nH(J)
C874
2200pF(K)
R864
120(D)
R865
120(D)
C866
36pF(J)
C870
39pF(J)
C871
36pF(J)
C879
0.1uF(Z)
C894
C895
0.1uF(Z)
FDC_IF-
FDC_IF+
R861
10K(J)
R860
120K(J)
FDC_AGC
C886
0.1uF(Z)
C878
0.1uF(Z)
C880
2200pF(K)
C884
0.1uF(Z)
FDC_LO+
C885
0.1uF(Z)
FDC_LO-
56/62/72HM195
DIGITAL_TUNER (OOB_FDC)
SH.NO.
105



56/62/72HM195
DIGITAL_TUNER (FAT_TUNER)

SH.NO.
106

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